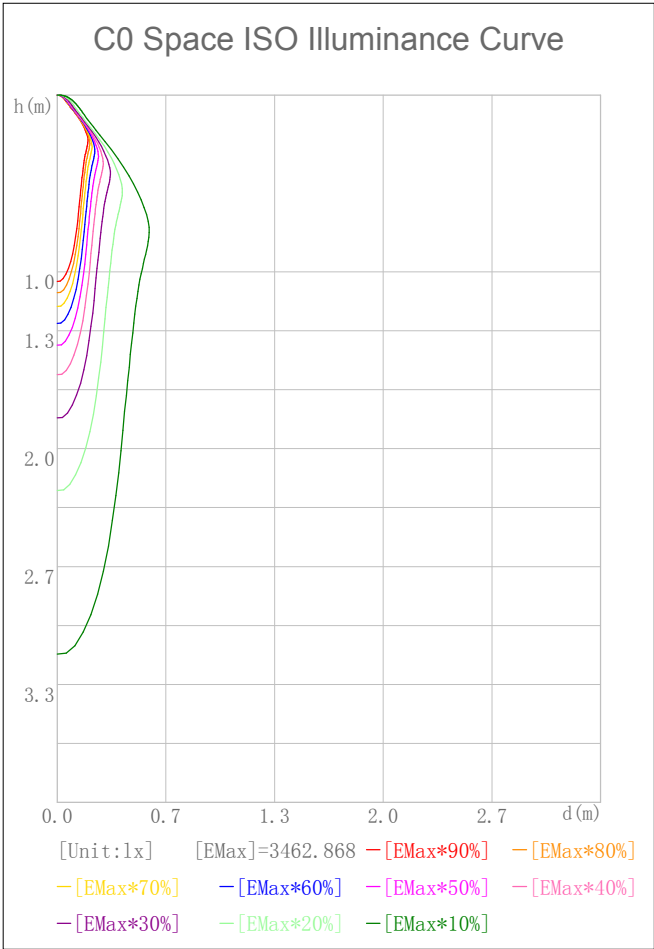
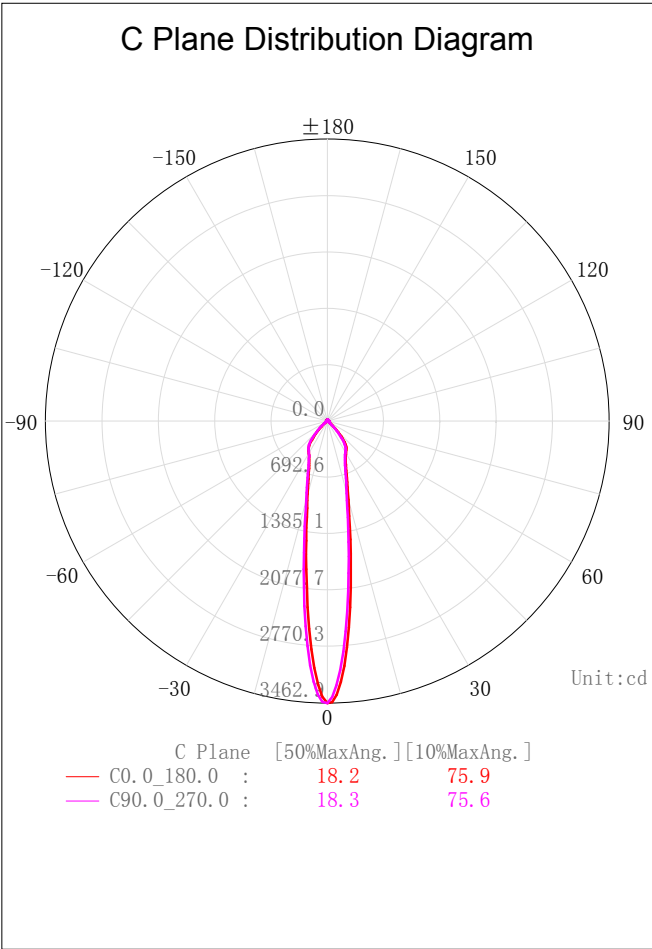


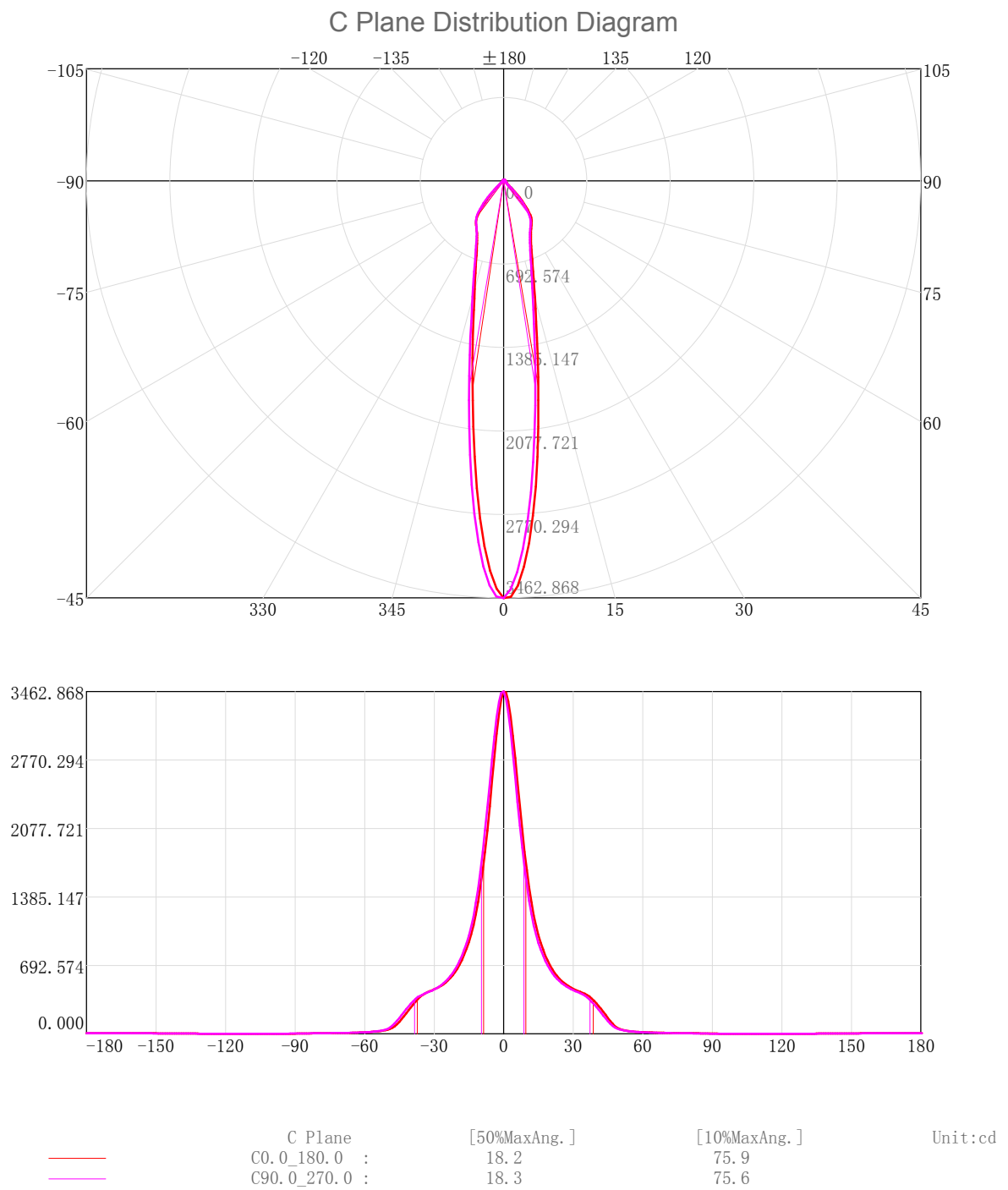
Indoor Luminaire Photometric Data

Character Parameter

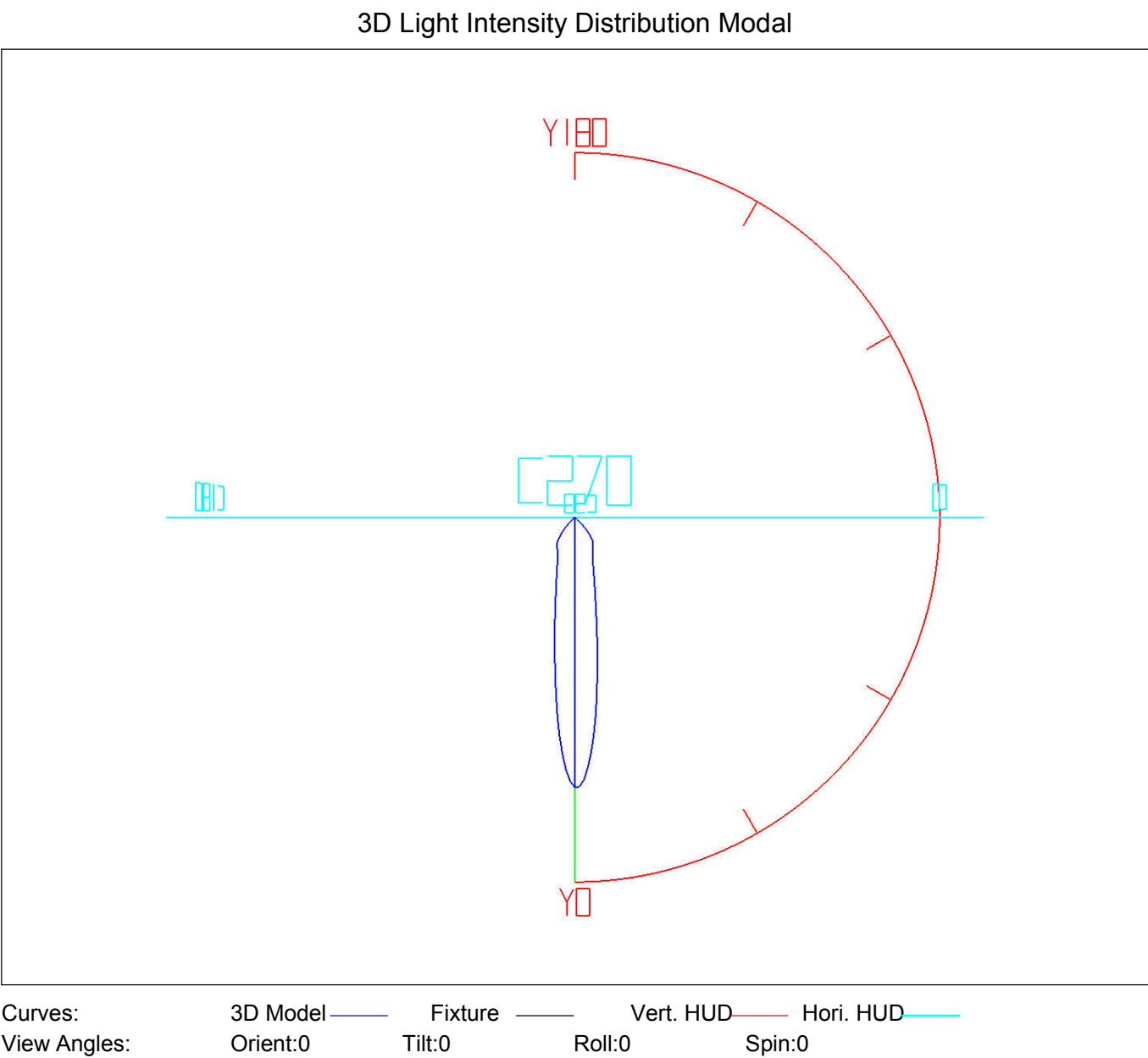
| Lamp Speciality Parameter   |                      | Luminaire Speciality Parameter |             |
|-----------------------------|----------------------|--------------------------------|-------------|
| Rated Flux(lm):             | 1100.000             | Luminary Flux(lm):             | 1178.009    |
| Rated Power(W):             |                      | Luminary Efficiency:           | 107.09%     |
| Rated Voltage(V):           |                      | Luminary EER(lm/W):            | 95.154      |
| Tested Power(W):            | 12.380               | Max. Candela(cd):              | 3462.868    |
| Lamps' Inside:              | 1                    | Max Cand@Ang. (°):             | C=0.0 γ=0.0 |
| Tested Electrics(V, A, pf): | 240.3, 0.054, 0.943  | Beam Angle(50%Imax):           | 18.2(°)     |
| Lamp Size(W*L*H):           | 0.050m*0.000m*0.000m | Left=-8.6°, Right=9.6°         | IRF(%):     |
|                             |                      |                                | 630.411     |



2D Plane Light Intensity Distribution Curve



3D Light Intensity Distribution Modal



IES EQUIVALENT

Photometric Filename:KA13R15BTC.IES

Zonal Flux Tabulation

| Zone ( γ ) | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone ( γ ) | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|------------|-------------------|-------------------|-----------|-----------|------------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0    | 3.29              | 3.29              | 0.30      | 0.30      | 47.0-48.0  | 6.72              | 1086.23           | 0.61      | 98.75     |
| 1.0-2.0    | 9.65              | 12.94             | 0.88      | 1.18      | 48.0-49.0  | 5.43              | 1091.66           | 0.49      | 99.24     |
| 2.0-3.0    | 15.38             | 28.32             | 1.40      | 2.57      | 49.0-50.0  | 4.51              | 1096.17           | 0.41      | 99.65     |
| 3.0-4.0    | 20.23             | 48.55             | 1.84      | 4.41      | 50.0-51.0  | 3.88              | 1100.04           | 0.35      | 100.00    |
| 4.0-5.0    | 24.08             | 72.62             | 2.19      | 6.60      | 51.0-52.0  | 3.39              | 1103.43           | 0.31      | 100.31    |
| 5.0-6.0    | 26.87             | 99.50             | 2.44      | 9.05      | 52.0-53.0  | 2.98              | 1106.41           | 0.27      | 100.58    |
| 6.0-7.0    | 28.70             | 128.20            | 2.61      | 11.65     | 53.0-54.0  | 2.68              | 1109.09           | 0.24      | 100.83    |
| 7.0-8.0    | 29.71             | 157.91            | 2.70      | 14.36     | 54.0-55.0  | 2.45              | 1111.54           | 0.22      | 101.05    |
| 8.0-9.0    | 30.13             | 188.04            | 2.74      | 17.09     | 55.0-56.0  | 2.28              | 1113.82           | 0.21      | 101.26    |
| 9.0-10.0   | 30.15             | 218.19            | 2.74      | 19.84     | 56.0-57.0  | 2.12              | 1115.94           | 0.19      | 101.45    |
| 10.0-11.0  | 29.83             | 248.02            | 2.71      | 22.55     | 57.0-58.0  | 1.99              | 1117.93           | 0.18      | 101.63    |
| 11.0-12.0  | 29.28             | 277.30            | 2.66      | 25.21     | 58.0-59.0  | 1.86              | 1119.79           | 0.17      | 101.80    |
| 12.0-13.0  | 28.66             | 305.96            | 2.61      | 27.81     | 59.0-60.0  | 1.76              | 1121.55           | 0.16      | 101.96    |
| 13.0-14.0  | 28.09             | 334.05            | 2.55      | 30.37     | 60.0-61.0  | 1.66              | 1123.21           | 0.15      | 102.11    |
| 14.0-15.0  | 27.60             | 361.65            | 2.51      | 32.88     | 61.0-62.0  | 1.58              | 1124.79           | 0.14      | 102.25    |
| 15.0-16.0  | 27.14             | 388.78            | 2.47      | 35.34     | 62.0-63.0  | 1.51              | 1126.29           | 0.14      | 102.39    |
| 16.0-17.0  | 26.68             | 415.46            | 2.43      | 37.77     | 63.0-64.0  | 1.44              | 1127.73           | 0.13      | 102.52    |
| 17.0-18.0  | 26.26             | 441.72            | 2.39      | 40.16     | 64.0-65.0  | 1.38              | 1129.11           | 0.13      | 102.65    |
| 18.0-19.0  | 25.86             | 467.59            | 2.35      | 42.51     | 65.0-66.0  | 1.32              | 1130.43           | 0.12      | 102.77    |
| 19.0-20.0  | 25.50             | 493.09            | 2.32      | 44.83     | 66.0-67.0  | 1.28              | 1131.71           | 0.12      | 102.88    |
| 20.0-21.0  | 25.17             | 518.26            | 2.29      | 47.11     | 67.0-68.0  | 1.23              | 1132.94           | 0.11      | 102.99    |
| 21.0-22.0  | 24.90             | 543.16            | 2.26      | 49.38     | 68.0-69.0  | 1.19              | 1134.13           | 0.11      | 103.10    |
| 22.0-23.0  | 24.70             | 567.87            | 2.25      | 51.62     | 69.0-70.0  | 1.15              | 1135.29           | 0.10      | 103.21    |
| 23.0-24.0  | 24.55             | 592.41            | 2.23      | 53.86     | 70.0-71.0  | 1.12              | 1136.41           | 0.10      | 103.31    |
| 24.0-25.0  | 24.45             | 616.86            | 2.22      | 56.08     | 71.0-72.0  | 1.08              | 1137.49           | 0.10      | 103.41    |
| 25.0-26.0  | 24.41             | 641.27            | 2.22      | 58.30     | 72.0-73.0  | 1.05              | 1138.54           | 0.10      | 103.50    |
| 26.0-27.0  | 24.40             | 665.67            | 2.22      | 60.52     | 73.0-74.0  | 1.02              | 1139.56           | 0.09      | 103.60    |
| 27.0-28.0  | 24.44             | 690.11            | 2.22      | 62.74     | 74.0-75.0  | 0.99              | 1140.55           | 0.09      | 103.69    |
| 28.0-29.0  | 24.54             | 714.65            | 2.23      | 64.97     | 75.0-76.0  | 0.96              | 1141.51           | 0.09      | 103.77    |
| 29.0-30.0  | 24.67             | 739.32            | 2.24      | 67.21     | 76.0-77.0  | 0.93              | 1142.44           | 0.08      | 103.86    |
| 30.0-31.0  | 24.81             | 764.13            | 2.26      | 69.47     | 77.0-78.0  | 0.90              | 1143.33           | 0.08      | 103.94    |
| 31.0-32.0  | 24.94             | 789.07            | 2.27      | 71.73     | 78.0-79.0  | 0.87              | 1144.20           | 0.08      | 104.02    |
| 32.0-33.0  | 25.06             | 814.13            | 2.28      | 74.01     | 79.0-80.0  | 0.84              | 1145.04           | 0.08      | 104.09    |
| 33.0-34.0  | 25.11             | 839.24            | 2.28      | 76.29     | 80.0-81.0  | 0.81              | 1145.85           | 0.07      | 104.17    |
| 34.0-35.0  | 25.04             | 864.28            | 2.28      | 78.57     | 81.0-82.0  | 0.79              | 1146.64           | 0.07      | 104.24    |
| 35.0-36.0  | 24.84             | 889.12            | 2.26      | 80.83     | 82.0-83.0  | 0.76              | 1147.40           | 0.07      | 104.31    |
| 36.0-37.0  | 24.38             | 913.50            | 2.22      | 83.05     | 83.0-84.0  | 0.73              | 1148.13           | 0.07      | 104.38    |
| 37.0-38.0  | 23.59             | 937.09            | 2.14      | 85.19     | 84.0-85.0  | 0.70              | 1148.83           | 0.06      | 104.44    |
| 38.0-39.0  | 22.52             | 959.61            | 2.05      | 87.24     | 85.0-86.0  | 0.67              | 1149.50           | 0.06      | 104.50    |
| 39.0-40.0  | 21.18             | 980.79            | 1.93      | 89.16     | 86.0-87.0  | 0.63              | 1150.12           | 0.06      | 104.56    |
| 40.0-41.0  | 19.64             | 1000.43           | 1.79      | 90.95     | 87.0-88.0  | 0.58              | 1150.70           | 0.05      | 104.61    |
| 41.0-42.0  | 17.94             | 1018.37           | 1.63      | 92.58     | 88.0-89.0  | 0.52              | 1151.22           | 0.05      | 104.66    |
| 42.0-43.0  | 16.12             | 1034.49           | 1.47      | 94.04     | 89.0-90.0  | 0.47              | 1151.69           | 0.04      | 104.70    |
| 43.0-44.0  | 14.20             | 1048.69           | 1.29      | 95.34     | 90.0-91.0  | 0.44              | 1152.13           | 0.04      | 104.74    |
| 44.0-45.0  | 12.21             | 1060.90           | 1.11      | 96.45     | 91.0-92.0  | 0.42              | 1152.55           | 0.04      | 104.78    |
| 45.0-46.0  | 10.25             | 1071.15           | 0.93      | 97.38     | 92.0-93.0  | 0.41              | 1152.96           | 0.04      | 104.81    |
| 46.0-47.0  | 8.37              | 1079.51           | 0.76      | 98.14     | 93.0-94.0  | 0.40              | 1153.36           | 0.04      | 104.85    |

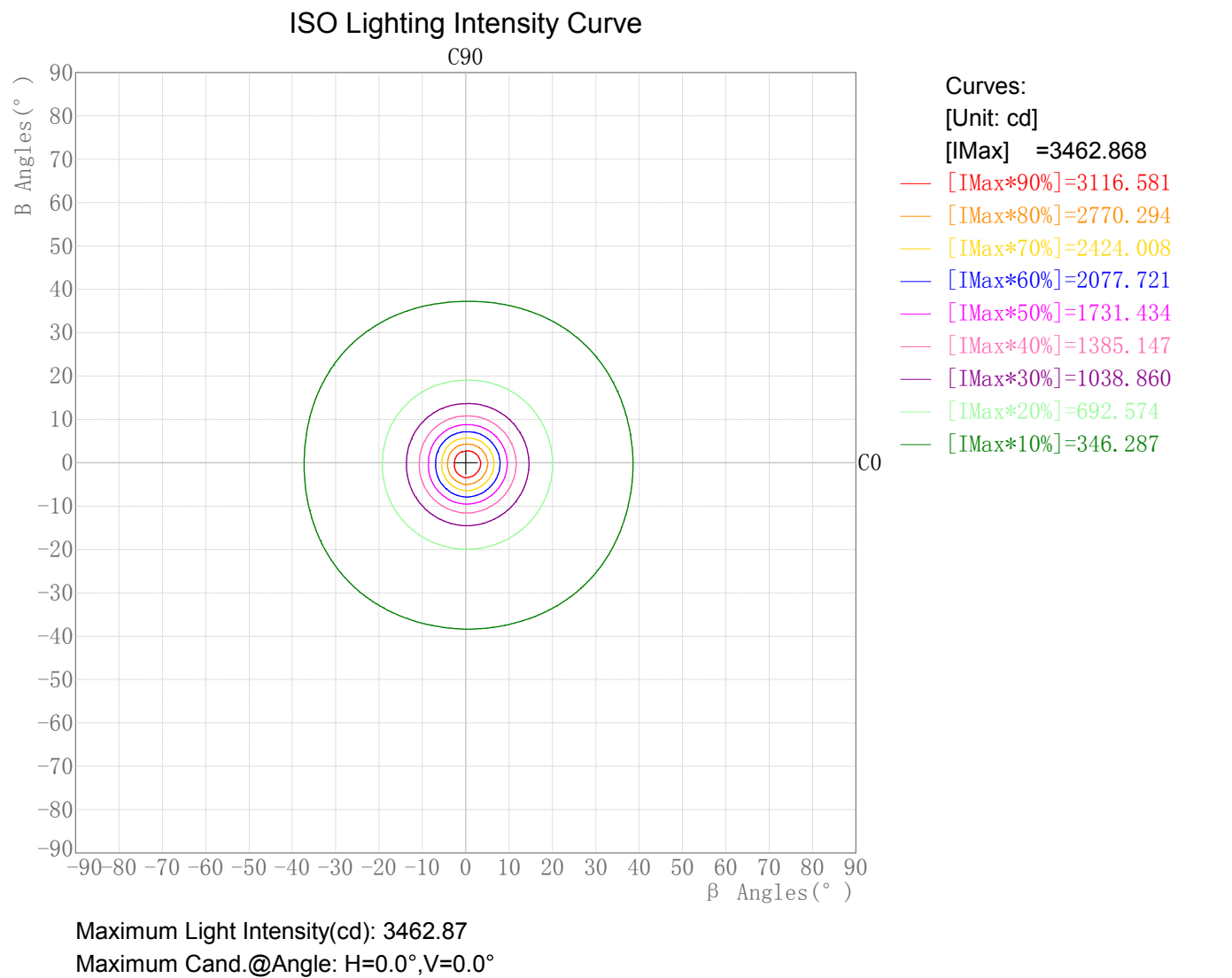
IES EQUIVALENT

Photometric Filename:KA13R15BTC.IES

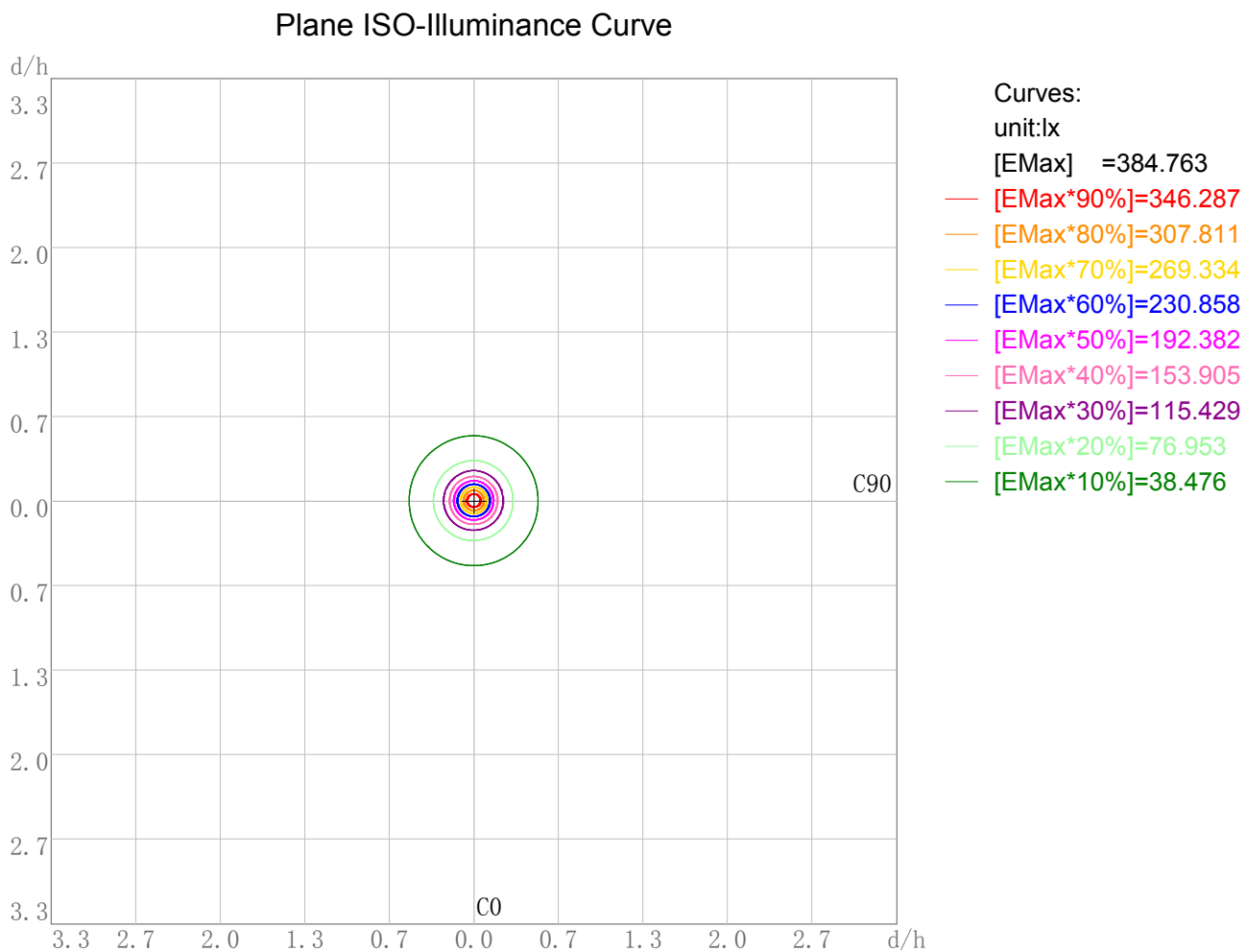
Zonal Flux Tabulation - (Cont.)

| Zone ( γ )    | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone ( γ )    | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|---------------|-------------------|-------------------|-----------|-----------|---------------|-------------------|-------------------|-----------|-----------|
| 94. 0-95. 0   | 0. 39             | 1153. 75          | 0. 04     | 104. 89   | 141. 0-142. 0 | 0. 36             | 1168. 73          | 0. 03     | 106. 25   |
| 95. 0-96. 0   | 0. 38             | 1154. 12          | 0. 03     | 104. 92   | 142. 0-143. 0 | 0. 37             | 1169. 10          | 0. 03     | 106. 28   |
| 96. 0-97. 0   | 0. 37             | 1154. 49          | 0. 03     | 104. 95   | 143. 0-144. 0 | 0. 37             | 1169. 47          | 0. 03     | 106. 32   |
| 97. 0-98. 0   | 0. 36             | 1154. 85          | 0. 03     | 104. 99   | 144. 0-145. 0 | 0. 37             | 1169. 84          | 0. 03     | 106. 35   |
| 98. 0-99. 0   | 0. 35             | 1155. 20          | 0. 03     | 105. 02   | 145. 0-146. 0 | 0. 37             | 1170. 21          | 0. 03     | 106. 38   |
| 99. 0-100. 0  | 0. 34             | 1155. 54          | 0. 03     | 105. 05   | 146. 0-147. 0 | 0. 37             | 1170. 58          | 0. 03     | 106. 42   |
| 100. 0-101. 0 | 0. 33             | 1155. 87          | 0. 03     | 105. 08   | 147. 0-148. 0 | 0. 37             | 1170. 95          | 0. 03     | 106. 45   |
| 101. 0-102. 0 | 0. 33             | 1156. 20          | 0. 03     | 105. 11   | 148. 0-149. 0 | 0. 37             | 1171. 31          | 0. 03     | 106. 48   |
| 102. 0-103. 0 | 0. 32             | 1156. 52          | 0. 03     | 105. 14   | 149. 0-150. 0 | 0. 36             | 1171. 68          | 0. 03     | 106. 52   |
| 103. 0-104. 0 | 0. 32             | 1156. 84          | 0. 03     | 105. 17   | 150. 0-151. 0 | 0. 36             | 1172. 04          | 0. 03     | 106. 55   |
| 104. 0-105. 0 | 0. 31             | 1157. 15          | 0. 03     | 105. 20   | 151. 0-152. 0 | 0. 35             | 1172. 39          | 0. 03     | 106. 58   |
| 105. 0-106. 0 | 0. 31             | 1157. 46          | 0. 03     | 105. 22   | 152. 0-153. 0 | 0. 35             | 1172. 74          | 0. 03     | 106. 61   |
| 106. 0-107. 0 | 0. 31             | 1157. 77          | 0. 03     | 105. 25   | 153. 0-154. 0 | 0. 34             | 1173. 08          | 0. 03     | 106. 64   |
| 107. 0-108. 0 | 0. 30             | 1158. 07          | 0. 03     | 105. 28   | 154. 0-155. 0 | 0. 33             | 1173. 41          | 0. 03     | 106. 67   |
| 108. 0-109. 0 | 0. 30             | 1158. 37          | 0. 03     | 105. 31   | 155. 0-156. 0 | 0. 33             | 1173. 74          | 0. 03     | 106. 70   |
| 109. 0-110. 0 | 0. 30             | 1158. 67          | 0. 03     | 105. 33   | 156. 0-157. 0 | 0. 32             | 1174. 06          | 0. 03     | 106. 73   |
| 110. 0-111. 0 | 0. 30             | 1158. 97          | 0. 03     | 105. 36   | 157. 0-158. 0 | 0. 31             | 1174. 37          | 0. 03     | 106. 76   |
| 111. 0-112. 0 | 0. 30             | 1159. 27          | 0. 03     | 105. 39   | 158. 0-159. 0 | 0. 30             | 1174. 67          | 0. 03     | 106. 79   |
| 112. 0-113. 0 | 0. 30             | 1159. 56          | 0. 03     | 105. 41   | 159. 0-160. 0 | 0. 29             | 1174. 96          | 0. 03     | 106. 81   |
| 113. 0-114. 0 | 0. 29             | 1159. 86          | 0. 03     | 105. 44   | 160. 0-161. 0 | 0. 28             | 1175. 24          | 0. 03     | 106. 84   |
| 114. 0-115. 0 | 0. 29             | 1160. 15          | 0. 03     | 105. 47   | 161. 0-162. 0 | 0. 27             | 1175. 50          | 0. 02     | 106. 86   |
| 115. 0-116. 0 | 0. 29             | 1160. 44          | 0. 03     | 105. 49   | 162. 0-163. 0 | 0. 26             | 1175. 76          | 0. 02     | 106. 89   |
| 116. 0-117. 0 | 0. 29             | 1160. 74          | 0. 03     | 105. 52   | 163. 0-164. 0 | 0. 25             | 1176. 01          | 0. 02     | 106. 91   |
| 117. 0-118. 0 | 0. 29             | 1161. 03          | 0. 03     | 105. 55   | 164. 0-165. 0 | 0. 23             | 1176. 24          | 0. 02     | 106. 93   |
| 118. 0-119. 0 | 0. 29             | 1161. 32          | 0. 03     | 105. 57   | 165. 0-166. 0 | 0. 22             | 1176. 46          | 0. 02     | 106. 95   |
| 119. 0-120. 0 | 0. 29             | 1161. 62          | 0. 03     | 105. 60   | 166. 0-167. 0 | 0. 21             | 1176. 67          | 0. 02     | 106. 97   |
| 120. 0-121. 0 | 0. 29             | 1161. 91          | 0. 03     | 105. 63   | 167. 0-168. 0 | 0. 19             | 1176. 86          | 0. 02     | 106. 99   |
| 121. 0-122. 0 | 0. 30             | 1162. 21          | 0. 03     | 105. 66   | 168. 0-169. 0 | 0. 18             | 1177. 04          | 0. 02     | 107. 00   |
| 122. 0-123. 0 | 0. 30             | 1162. 50          | 0. 03     | 105. 68   | 169. 0-170. 0 | 0. 17             | 1177. 21          | 0. 02     | 107. 02   |
| 123. 0-124. 0 | 0. 30             | 1162. 80          | 0. 03     | 105. 71   | 170. 0-171. 0 | 0. 15             | 1177. 36          | 0. 01     | 107. 03   |
| 124. 0-125. 0 | 0. 30             | 1163. 10          | 0. 03     | 105. 74   | 171. 0-172. 0 | 0. 14             | 1177. 49          | 0. 01     | 107. 04   |
| 125. 0-126. 0 | 0. 30             | 1163. 40          | 0. 03     | 105. 76   | 172. 0-173. 0 | 0. 12             | 1177. 61          | 0. 01     | 107. 06   |
| 126. 0-127. 0 | 0. 30             | 1163. 71          | 0. 03     | 105. 79   | 173. 0-174. 0 | 0. 10             | 1177. 72          | 0. 01     | 107. 07   |
| 127. 0-128. 0 | 0. 31             | 1164. 02          | 0. 03     | 105. 82   | 174. 0-175. 0 | 0. 09             | 1177. 81          | 0. 01     | 107. 07   |
| 128. 0-129. 0 | 0. 31             | 1164. 33          | 0. 03     | 105. 85   | 175. 0-176. 0 | 0. 07             | 1177. 88          | 0. 01     | 107. 08   |
| 129. 0-130. 0 | 0. 31             | 1164. 64          | 0. 03     | 105. 88   | 176. 0-177. 0 | 0. 06             | 1177. 94          | 0. 01     | 107. 09   |
| 130. 0-131. 0 | 0. 32             | 1164. 96          | 0. 03     | 105. 91   | 177. 0-178. 0 | 0. 04             | 1177. 98          | 0. 00     | 107. 09   |
| 131. 0-132. 0 | 0. 32             | 1165. 28          | 0. 03     | 105. 93   | 178. 0-179. 0 | 0. 02             | 1178. 00          | 0. 00     | 107. 09   |
| 132. 0-133. 0 | 0. 33             | 1165. 60          | 0. 03     | 105. 96   | 179. 0-180. 0 | 0. 01             | 1178. 01          | 0. 00     | 107. 09   |
| 133. 0-134. 0 | 0. 33             | 1165. 93          | 0. 03     | 105. 99   |               |                   |                   |           |           |
| 134. 0-135. 0 | 0. 33             | 1166. 27          | 0. 03     | 106. 02   |               |                   |                   |           |           |
| 135. 0-136. 0 | 0. 34             | 1166. 61          | 0. 03     | 106. 06   |               |                   |                   |           |           |
| 136. 0-137. 0 | 0. 34             | 1166. 95          | 0. 03     | 106. 09   |               |                   |                   |           |           |
| 137. 0-138. 0 | 0. 35             | 1167. 30          | 0. 03     | 106. 12   |               |                   |                   |           |           |
| 138. 0-139. 0 | 0. 35             | 1167. 65          | 0. 03     | 106. 15   |               |                   |                   |           |           |
| 139. 0-140. 0 | 0. 36             | 1168. 01          | 0. 03     | 106. 18   |               |                   |                   |           |           |
| 140. 0-141. 0 | 0. 36             | 1168. 37          | 0. 03     | 106. 22   |               |                   |                   |           |           |

Rectangle ISO Lighting Intensity Diagram



Plane ISO-Illuminance Diagram

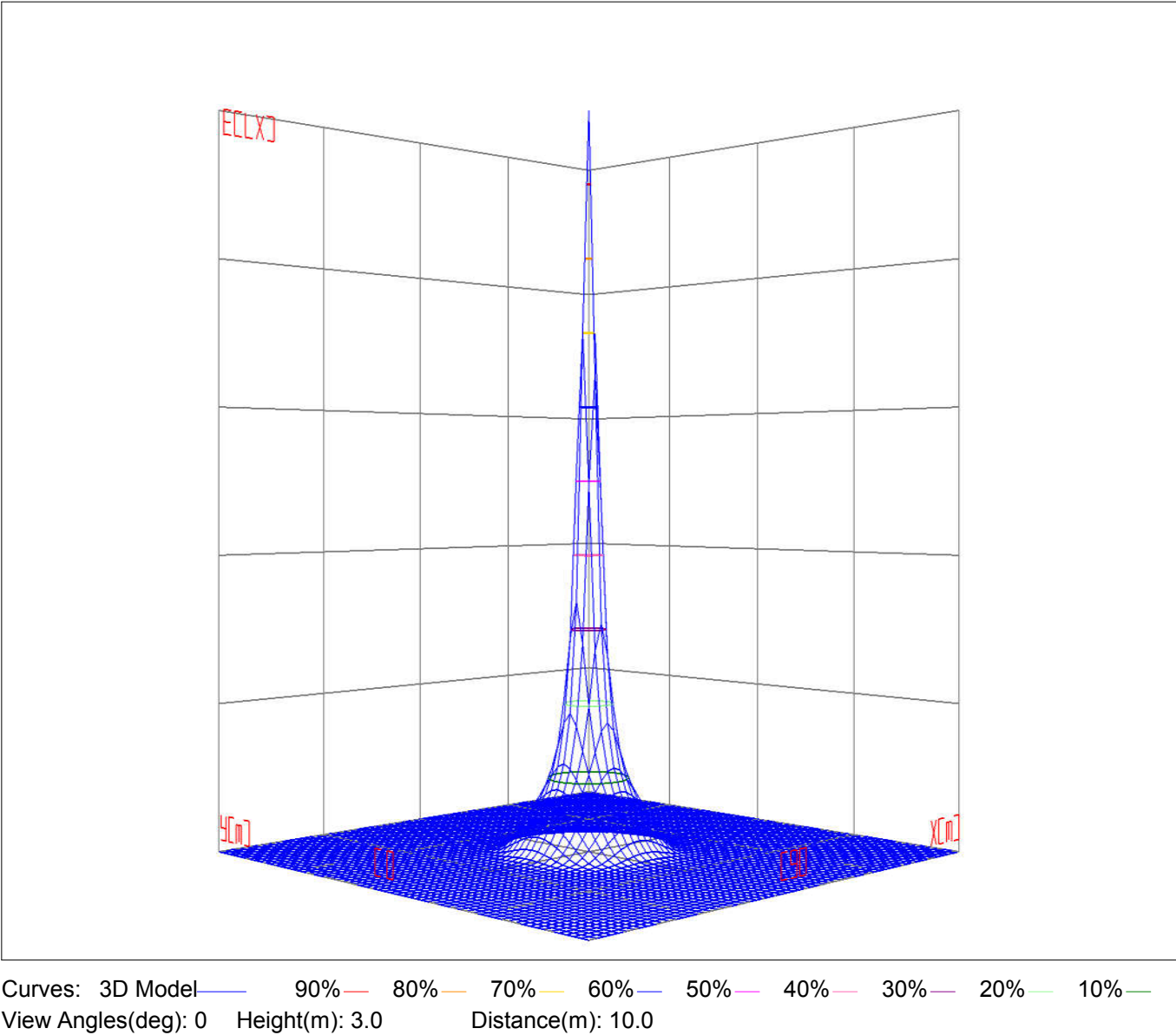


Working Plane Luminaire Mounting Height(m): 3.00  
Working Plane Maximum Illuminance(lx): 384.76  
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

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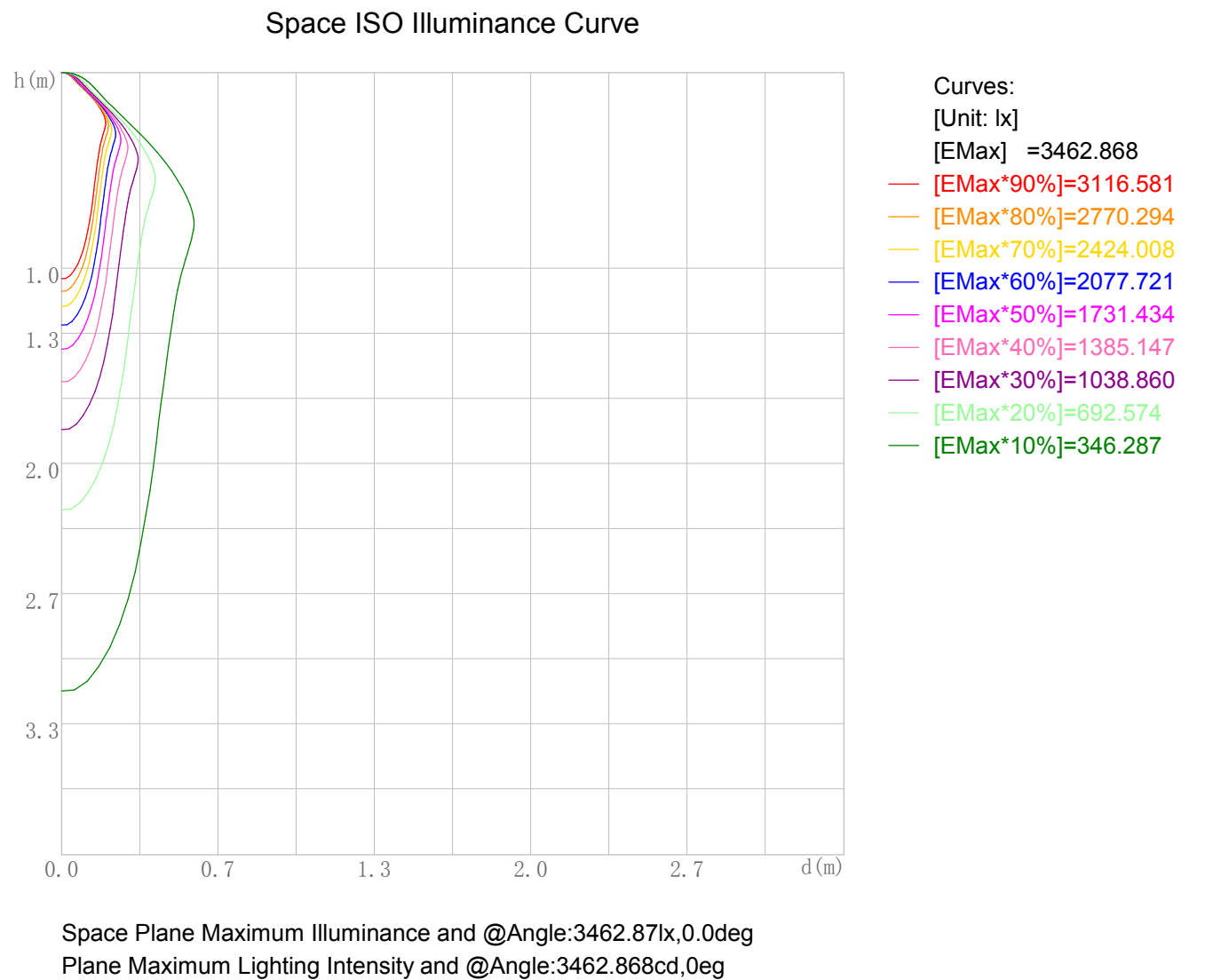
3D Plane ISO Illuminance Diagram

3D Plane Illuminance Modal

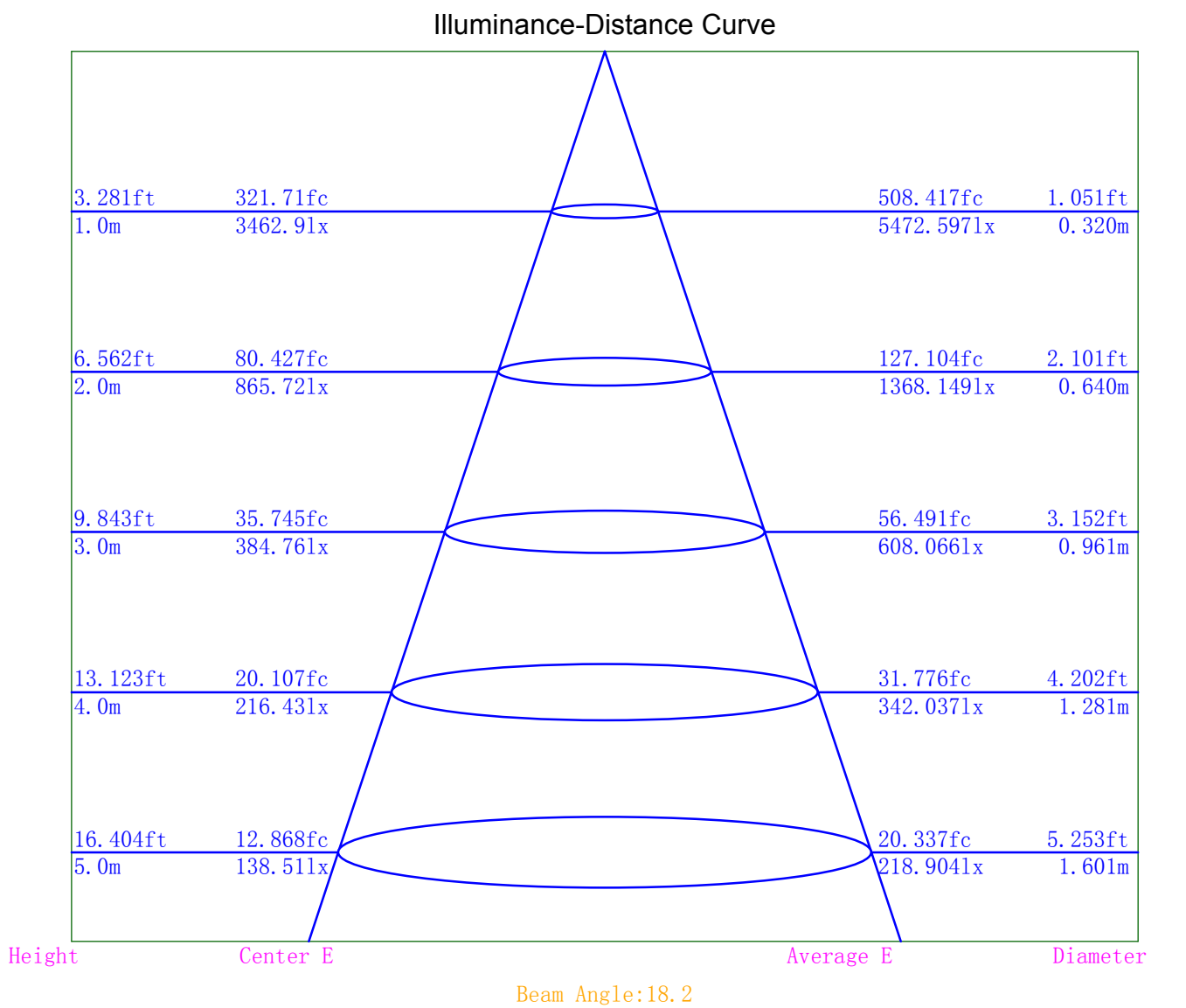




Space ISO Illuminance Diagram



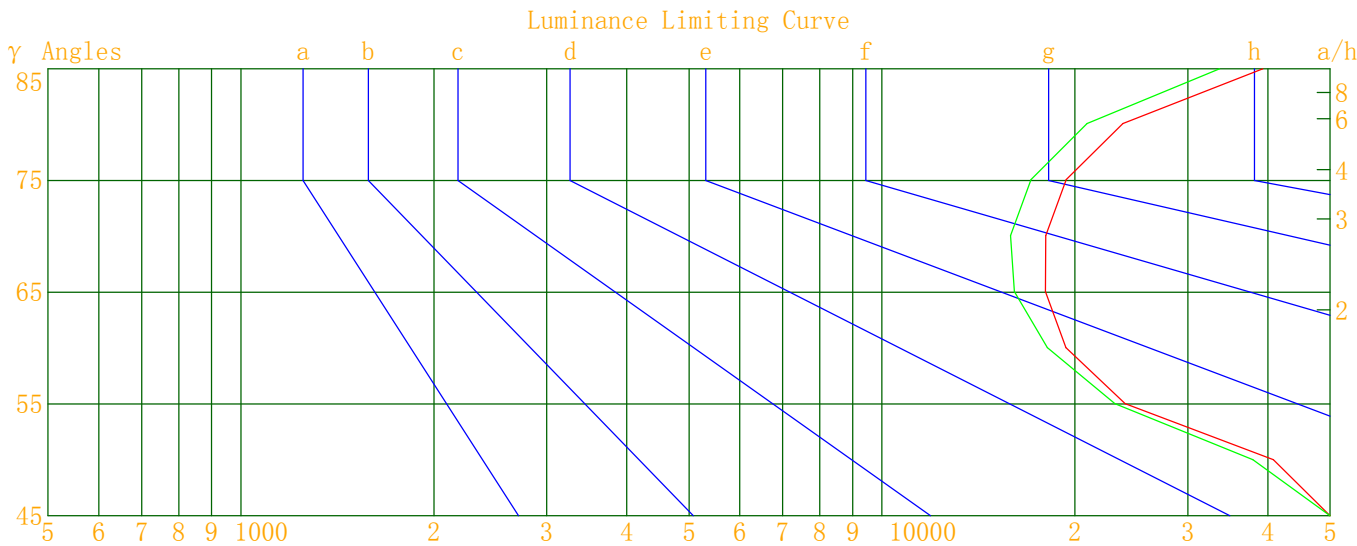
Illuminance-Distance Diagram



Indoor Luminance Limiting Curves

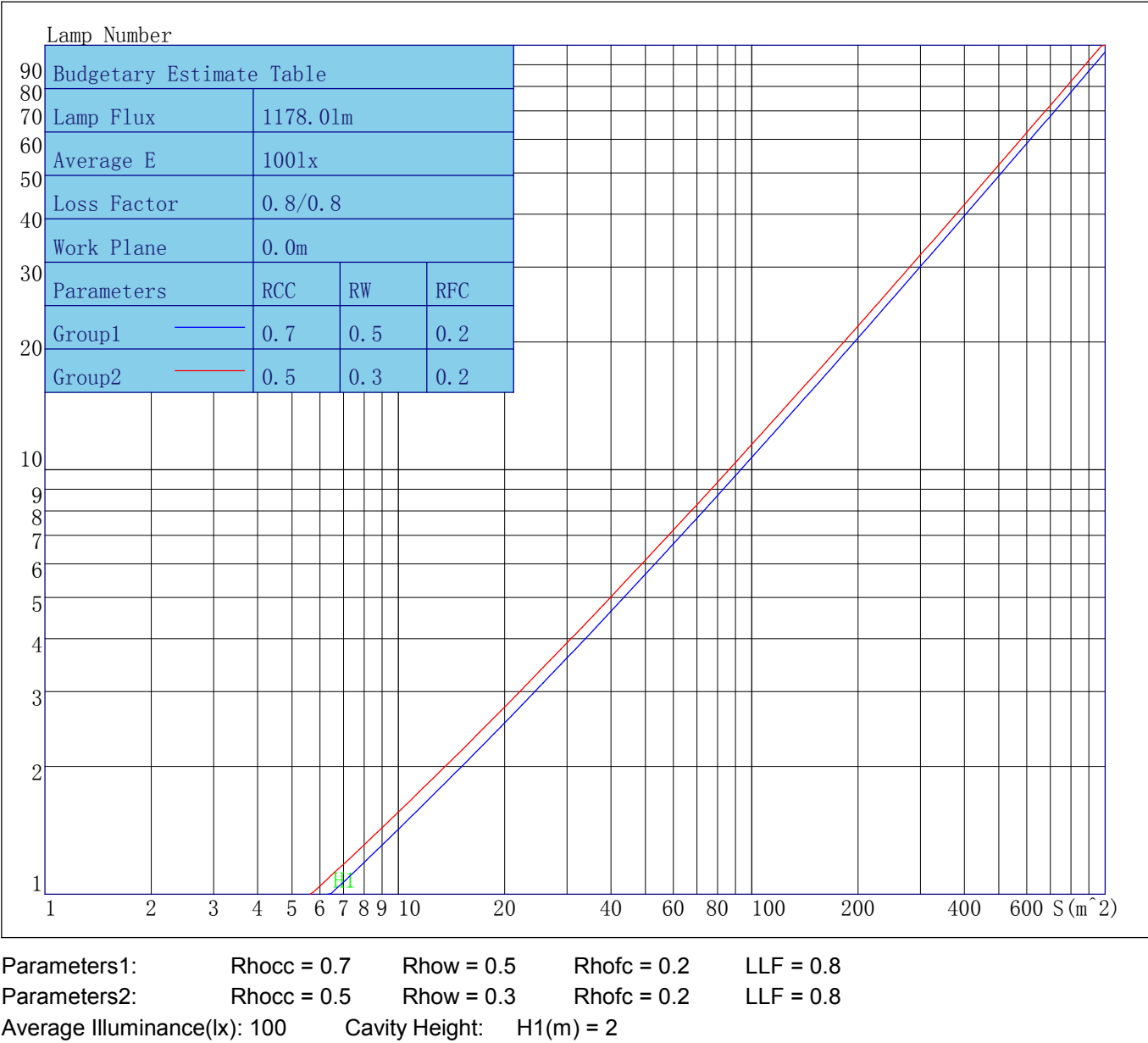
| Glare Grade Table |         |                   |      |      |       |       |       |       |       |
|-------------------|---------|-------------------|------|------|-------|-------|-------|-------|-------|
| GI                | Quality | Using Illuminance |      |      |       |       |       |       |       |
| 1.15              | A       | 2000              | 1000 | 500  | <=300 |       |       |       |       |
| 1.5               | B       |                   | 2000 | 1000 | 500   | <=300 |       |       |       |
| 1.85              | C       |                   |      | 2000 | 1000  | 500   | <=300 |       |       |
| 2.2               | D       |                   |      |      | 2000  | 1000  | 500   | <=300 |       |
| 2.55              | E       | a                 |      |      |       | 2000  | 1000  | 500   | <=300 |
|                   |         |                   | b    | c    | d     | e     | f     | g     | h     |

| Luminance Table |        |       |       |       |       |       |       |       |       |
|-----------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Gama (deg)      | 45     | 50    | 55    | 60    | 65    | 70    | 75    | 80    | 85    |
| C0              | 116917 | 40805 | 23947 | 19368 | 17987 | 18006 | 19396 | 23751 | 39286 |
| C90             | 93868  | 37913 | 23092 | 18124 | 16098 | 15877 | 17090 | 20894 | 33624 |



Luminous Size: Length(m)=0.000 Width(m)=-0.050 Height(m)=0.000 Area(m^2)=0.001963  
Luminous Type: Without Luminous Side  
Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table



Indoor Coefficient of Utilization Table

| Coefficients of Utilization - Zonal Cavity Method |   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Coef.   | Effective Floor Cavity Reflectance RFC=0.20 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RhoCC (%)   | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0   |
| RhoW (%)  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| RCR   | Coefficient of Utilization(%)               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 127   | 127 | 127 | 127 | 124 | 124 | 124 | 124 | 118 | 118 | 118 | 112 | 112 | 112 | 107 | 107 | 107 | 105 |
| 1   | 121   | 117 | 115 | 112 | 118 | 115 | 112 | 110 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 100 | 99  | 97  |
| 2   | 114   | 109 | 104 | 100 | 112 | 107 | 103 | 99  | 103 | 99  | 97  | 99  | 97  | 94  | 96  | 94  | 92  | 90  |
| 3   | 108   | 101 | 96  | 91  | 106 | 100 | 94  | 90  | 96  | 92  | 89  | 93  | 90  | 87  | 91  | 88  | 85  | 83  |
| 4   | 103   | 94  | 88  | 84  | 101 | 93  | 87  | 83  | 90  | 86  | 82  | 88  | 84  | 81  | 86  | 82  | 79  | 78  |
| 5   | 98  | 89  | 82  | 77  | 96  | 87  | 81  | 77  | 85  | 80  | 76  | 83  | 79  | 75  | 81  | 77  | 74  | 73  |
| 6   | 93  | 83  | 77  | 72  | 91  | 82  | 76  | 72  | 80  | 75  | 71  | 79  | 74  | 70  | 77  | 73  | 70  | 68  |
| 7   | 88  | 78  | 72  | 67  | 87  | 78  | 72  | 67  | 76  | 71  | 67  | 75  | 70  | 66  | 73  | 69  | 66  | 64  |
| 8   | 84  | 74  | 68  | 63  | 83  | 73  | 67  | 63  | 72  | 67  | 63  | 71  | 66  | 62  | 70  | 65  | 62  | 60  |
| 9   | 81  | 70  | 64  | 60  | 79  | 70  | 64  | 60  | 69  | 63  | 59  | 67  | 63  | 59  | 66  | 62  | 59  | 57  |
| 10  | 77  | 67  | 61  | 57  | 76  | 66  | 60  | 57  | 65  | 60  | 56  | 64  | 59  | 56  | 63  | 59  | 56  | 54  |

Unified Glare Rating Table

| Unified Glare Rating Table                        |       |                 |      |      |      |      |               |      |      |      |      |
|---|-------|-----------------|------|------|------|------|---------------|------|------|------|------|
| Ceiling RCC                                       |       | 0.70            | 0.70 | 0.50 | 0.50 | 0.30 | 0.70          | 0.70 | 0.50 | 0.50 | 0.30 |
| Wall RW   |       | 0.50            | 0.30 | 0.50 | 0.30 | 0.30 | 0.50          | 0.30 | 0.50 | 0.30 | 0.30 |
| Floor RFC   |       | 0.20            | 0.20 | 0.20 | 0.20 | 0.20 | 0.20          | 0.20 | 0.20 | 0.20 | 0.20 |
| Room Size   |       | Vewed crosswise |      |      |      |      | Vewed endwise |      |      |      |      |
| X=2H  | Y=2H  | 24.0            | 25.2 | 24.5 | 25.6 | 25.9 | 23.5          | 24.7 | 23.9 | 25.0 | 25.4 |
|   | Y=3H  | 24.0            | 25.1 | 24.4 | 25.4 | 25.9 | 23.5          | 24.5 | 23.9 | 24.9 | 25.3 |
|   | Y=4H  | 24.0            | 25.0 | 24.5 | 25.4 | 25.9 | 23.5          | 24.5 | 23.9 | 24.9 | 25.3 |
|   | Y=6H  | 24.1            | 25.0 | 24.6 | 25.4 | 25.9 | 23.5          | 24.5 | 24.0 | 24.9 | 25.3 |
|   | Y=8H  | 24.2            | 25.0 | 24.6 | 25.5 | 25.9 | 23.6          | 24.5 | 24.1 | 24.9 | 25.4 |
|   | Y=12H | 24.3            | 25.1 | 24.8 | 25.5 | 26.0 | 23.7          | 24.5 | 24.2 | 25.0 | 25.4 |
| X=4H  | Y=2H  | 23.8            | 24.8 | 24.3 | 25.2 | 25.7 | 23.3          | 24.3 | 23.7 | 24.7 | 25.1 |
|   | Y=3H  | 23.9            | 24.7 | 24.3 | 25.2 | 25.6 | 23.3          | 24.2 | 23.8 | 24.6 | 25.1 |
|   | Y=4H  | 23.9            | 24.7 | 24.4 | 25.2 | 25.7 | 23.4          | 24.2 | 23.9 | 24.6 | 25.1 |
|   | Y=6H  | 24.1            | 24.8 | 24.6 | 25.3 | 25.8 | 23.6          | 24.2 | 24.1 | 24.7 | 25.2 |
|   | Y=8H  | 24.3            | 24.9 | 24.8 | 25.4 | 25.9 | 23.7          | 24.3 | 24.2 | 24.8 | 25.3 |
|   | Y=12H | 24.5            | 25.0 | 25.0 | 25.6 | 26.1 | 23.9          | 24.5 | 24.4 | 25.0 | 25.5 |
| X=8H  | Y=4H  | 23.9            | 24.5 | 24.4 | 25.0 | 25.5 | 23.3          | 24.0 | 23.9 | 24.5 | 25.0 |
|   | Y=6H  | 24.2            | 24.7 | 24.7 | 25.2 | 25.9 | 23.6          | 24.2 | 24.1 | 24.7 | 25.3 |
|   | Y=8H  | 24.4            | 24.9 | 24.9 | 25.4 | 26.0 | 23.8          | 24.3 | 24.4 | 24.9 | 25.4 |
|   | Y=12H | 24.7            | 25.2 | 25.3 | 25.7 | 26.4 | 24.1          | 24.6 | 24.7 | 25.1 | 25.8 |
| X=12H   | Y=4H  | 23.9            | 24.4 | 24.4 | 25.0 | 25.5 | 23.3          | 23.9 | 23.8 | 24.4 | 25.0 |
|   | Y=6H  | 24.2            | 24.7 | 24.7 | 25.2 | 25.8 | 23.6          | 24.1 | 24.2 | 24.6 | 25.2 |
|   | Y=8H  | 24.4            | 24.9 | 25.0 | 25.4 | 26.1 | 23.9          | 24.4 | 24.4 | 24.9 | 25.5 |
| Variations with the objerver position at spacings |       |                 |      |      |      |      |               |      |      |      |      |
| S=1.0H  |       | 0.1/-0.1        |      |      |      |      | 0.1/-0.1      |      |      |      |      |
| S=1.5H  |       | 0.2/-0.2        |      |      |      |      | 0.2/-0.3      |      |      |      |      |
| S=2.0H  |       | 0.2/-0.3        |      |      |      |      | 0.3/-0.3      |      |      |      |      |
| Reduced UGR Table:                                |       |                 |      |      |      |      |               |      |      |      |      |
| Nordic Standard Table:                            |       | BK0             |      |      |      |      | BK0           |      |      |      |      |
| Correction Value                                  |       | 1.0             |      |      |      |      | 1.0           |      |      |      |      |

o the CIE Pub.117, data has been corrected, refers to the lamp's lumens 8.2flm.

IES EQUIVALENT

Photometric Filename:KA13R15BTC.IES

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Candela Tabulation

| V/H    | C0.0    | C90.0   | C180.0  | C270.0  |
|--------|---------|---------|---------|---------|
| γ 0.0  | 3462.87 | 3462.87 | 3462.87 | 3462.87 |
| γ 1.0  | 3452.36 | 3388.45 | 3384.35 | 3448.89 |
| γ 2.0  | 3363.40 | 3248.43 | 3237.52 | 3359.11 |
| γ 3.0  | 3206.80 | 3061.06 | 3036.27 | 3204.18 |
| γ 4.0  | 3013.36 | 2837.79 | 2808.53 | 3007.80 |
| γ 5.0  | 2790.50 | 2594.55 | 2559.65 | 2775.99 |
| γ 6.0  | 2551.67 | 2347.08 | 2301.19 | 2534.88 |
| γ 7.0  | 2306.93 | 2106.76 | 2056.13 | 2291.00 |
| γ 8.0  | 2061.30 | 1884.45 | 1840.24 | 2058.31 |
| γ 9.0  | 1843.12 | 1684.99 | 1658.41 | 1841.80 |
| γ 10.0 | 1655.15 | 1508.00 | 1492.46 | 1643.15 |
| γ 11.0 | 1482.84 | 1347.85 | 1338.49 | 1472.36 |
| γ 12.0 | 1329.32 | 1212.39 | 1206.14 | 1324.45 |
| γ 13.0 | 1199.18 | 1097.62 | 1099.25 | 1191.71 |
| γ 14.0 | 1092.63 | 1004.38 | 1006.96 | 1085.26 |
| γ 15.0 | 1002.90 | 922.20  | 930.28  | 996.63  |
| γ 16.0 | 923.24  | 853.15  | 861.36  | 918.02  |
| γ 17.0 | 852.83  | 793.51  | 801.31  | 850.41  |
| γ 18.0 | 792.47  | 739.31  | 748.39  | 791.51  |
| γ 19.0 | 741.14  | 692.71  | 701.68  | 739.38  |
| γ 20.0 | 694.20  | 653.13  | 659.98  | 691.49  |
| γ 21.0 | 653.37  | 616.97  | 623.34  | 650.93  |
| γ 22.0 | 618.23  | 585.72  | 592.82  | 615.96  |
| γ 23.0 | 587.36  | 559.22  | 565.33  | 584.71  |
| γ 24.0 | 559.72  | 535.65  | 541.71  | 557.04  |
| γ 25.0 | 536.68  | 515.96  | 521.19  | 532.68  |
| γ 26.0 | 516.81  | 498.71  | 502.30  | 511.36  |
| γ 27.0 | 499.59  | 481.76  | 486.82  | 492.20  |
| γ 28.0 | 484.61  | 467.10  | 473.40  | 476.46  |
| γ 29.0 | 470.13  | 454.49  | 462.47  | 462.68  |
| γ 30.0 | 458.14  | 444.09  | 452.13  | 450.77  |
| γ 31.0 | 446.33  | 433.78  | 441.94  | 439.18  |
| γ 32.0 | 435.62  | 424.71  | 432.38  | 428.43  |
| γ 33.0 | 426.33  | 414.47  | 421.49  | 419.35  |
| γ 34.0 | 415.39  | 402.65  | 408.21  | 410.47  |
| γ 35.0 | 406.66  | 389.49  | 394.13  | 398.16  |
| γ 36.0 | 394.88  | 372.70  | 376.93  | 387.24  |
| γ 37.0 | 380.30  | 351.22  | 353.37  | 373.69  |
| γ 38.0 | 359.80  | 326.98  | 327.21  | 354.87  |
| γ 39.0 | 337.32  | 301.10  | 299.35  | 332.30  |
| γ 40.0 | 310.61  | 274.17  | 268.77  | 305.77  |
| γ 41.0 | 281.92  | 245.04  | 240.33  | 279.15  |
| γ 42.0 | 253.32  | 216.09  | 208.86  | 250.71  |
| γ 43.0 | 223.21  | 187.12  | 180.08  | 220.93  |
| γ 44.0 | 193.16  | 158.66  | 149.53  | 191.76  |
| γ 45.0 | 162.33  | 130.33  | 122.73  | 162.78  |
| γ 46.0 | 132.44  | 104.59  | 97.74   | 135.04  |

IES EQUIVALENT

Photometric Filename:KA13R15BTC.IES

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Candela Tabulation - (Cont.)

| V/H    | C0.0   | C90.0 | C180.0 | C270.0 |
|--------|--------|-------|--------|--------|
| γ 47.0 | 104.01 | 82.92 | 77.19  | 107.61 |
| γ 48.0 | 79.83  | 66.22 | 61.96  | 85.21  |
| γ 49.0 | 63.24  | 54.73 | 51.19  | 66.24  |
| γ 50.0 | 51.50  | 47.85 | 44.41  | 53.19  |
| γ 51.0 | 44.56  | 41.48 | 39.28  | 44.17  |
| γ 52.0 | 37.69  | 35.71 | 34.26  | 38.47  |
| γ 53.0 | 32.78  | 31.59 | 30.65  | 32.96  |
| γ 54.0 | 29.46  | 28.44 | 27.93  | 29.17  |
| γ 55.0 | 26.97  | 26.01 | 25.64  | 26.37  |
| γ 56.0 | 24.87  | 23.89 | 23.62  | 24.20  |
| γ 57.0 | 23.05  | 22.03 | 21.80  | 22.27  |
| γ 58.0 | 21.49  | 20.45 | 20.18  | 20.52  |
| γ 59.0 | 20.18  | 19.06 | 18.62  | 19.03  |
| γ 60.0 | 19.01  | 17.79 | 17.22  | 17.72  |
| γ 61.0 | 18.08  | 16.69 | 16.08  | 16.57  |
| γ 62.0 | 17.18  | 15.75 | 15.08  | 15.63  |
| γ 63.0 | 16.37  | 14.88 | 14.18  | 14.79  |
| γ 64.0 | 15.59  | 14.08 | 13.39  | 14.04  |
| γ 65.0 | 14.93  | 13.36 | 12.68  | 13.35  |
| γ 66.0 | 14.30  | 12.73 | 12.07  | 12.74  |
| γ 67.0 | 13.70  | 12.13 | 11.57  | 12.19  |
| γ 68.0 | 13.15  | 11.60 | 11.14  | 11.75  |
| γ 69.0 | 12.61  | 11.10 | 10.77  | 11.32  |
| γ 70.0 | 12.09  | 10.66 | 10.41  | 10.95  |
| γ 71.0 | 11.61  | 10.22 | 10.07  | 10.59  |
| γ 72.0 | 11.10  | 9.81  | 9.78   | 10.27  |
| γ 73.0 | 10.66  | 9.41  | 9.46   | 9.95   |
| γ 74.0 | 10.25  | 9.05  | 9.16   | 9.64   |
| γ 75.0 | 9.86   | 8.69  | 8.86   | 9.35   |
| γ 76.0 | 9.47   | 8.35  | 8.58   | 9.05   |
| γ 77.0 | 9.10   | 8.01  | 8.29   | 8.75   |
| γ 78.0 | 8.75   | 7.69  | 8.02   | 8.45   |
| γ 79.0 | 8.41   | 7.38  | 7.76   | 8.14   |
| γ 80.0 | 8.10   | 7.12  | 7.51   | 7.85   |
| γ 81.0 | 7.80   | 6.86  | 7.25   | 7.55   |
| γ 82.0 | 7.55   | 6.68  | 6.97   | 7.25   |
| γ 83.0 | 7.30   | 6.45  | 6.70   | 6.95   |
| γ 84.0 | 7.03   | 6.19  | 6.41   | 6.68   |
| γ 85.0 | 6.72   | 5.75  | 6.19   | 6.42   |
| γ 86.0 | 6.26   | 5.33  | 5.88   | 6.13   |
| γ 87.0 | 5.86   | 4.95  | 5.51   | 5.80   |
| γ 88.0 | 5.46   | 4.39  | 4.88   | 5.45   |
| γ 89.0 | 4.92   | 3.76  | 4.16   | 4.99   |
| γ 90.0 | 4.42   | 3.51  | 3.78   | 4.56   |
| γ 91.0 | 4.26   | 3.42  | 3.66   | 4.36   |
| γ 92.0 | 4.13   | 3.33  | 3.55   | 4.23   |
| γ 93.0 | 4.02   | 3.24  | 3.43   | 4.09   |



Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0  | 3.91 | 3.15  | 3.33   | 3.97   |
| γ 95.0  | 3.81 | 3.08  | 3.25   | 3.85   |
| γ 96.0  | 3.71 | 3.01  | 3.16   | 3.73   |
| γ 97.0  | 3.63 | 2.95  | 3.08   | 3.64   |
| γ 98.0  | 3.55 | 2.89  | 3.02   | 3.54   |
| γ 99.0  | 3.47 | 2.84  | 2.96   | 3.46   |
| γ 100.0 | 3.40 | 2.80  | 2.91   | 3.39   |
| γ 101.0 | 3.35 | 2.76  | 2.87   | 3.32   |
| γ 102.0 | 3.29 | 2.73  | 2.84   | 3.26   |
| γ 103.0 | 3.24 | 2.70  | 2.81   | 3.22   |
| γ 104.0 | 3.20 | 2.68  | 2.79   | 3.18   |
| γ 105.0 | 3.17 | 2.66  | 2.77   | 3.13   |
| γ 106.0 | 3.14 | 2.65  | 2.78   | 3.11   |
| γ 107.0 | 3.12 | 2.65  | 2.77   | 3.09   |
| γ 108.0 | 3.10 | 2.66  | 2.78   | 3.08   |
| γ 109.0 | 3.09 | 2.65  | 2.78   | 3.07   |
| γ 110.0 | 3.07 | 2.65  | 2.80   | 3.06   |
| γ 111.0 | 3.06 | 2.66  | 2.81   | 3.08   |
| γ 112.0 | 3.06 | 2.67  | 2.83   | 3.08   |
| γ 113.0 | 3.06 | 2.66  | 2.86   | 3.09   |
| γ 114.0 | 3.07 | 2.68  | 2.90   | 3.10   |
| γ 115.0 | 3.07 | 2.68  | 2.92   | 3.13   |
| γ 116.0 | 3.07 | 2.70  | 2.97   | 3.14   |
| γ 117.0 | 3.07 | 2.73  | 3.01   | 3.17   |
| γ 118.0 | 3.08 | 2.74  | 3.06   | 3.21   |
| γ 119.0 | 3.10 | 2.77  | 3.11   | 3.24   |
| γ 120.0 | 3.12 | 2.81  | 3.16   | 3.28   |
| γ 121.0 | 3.14 | 2.85  | 3.22   | 3.33   |
| γ 122.0 | 3.18 | 2.90  | 3.28   | 3.38   |
| γ 123.0 | 3.21 | 2.96  | 3.35   | 3.43   |
| γ 124.0 | 3.25 | 3.01  | 3.43   | 3.48   |
| γ 125.0 | 3.31 | 3.08  | 3.49   | 3.54   |
| γ 126.0 | 3.37 | 3.14  | 3.59   | 3.60   |
| γ 127.0 | 3.42 | 3.23  | 3.66   | 3.67   |
| γ 128.0 | 3.51 | 3.31  | 3.75   | 3.74   |
| γ 129.0 | 3.58 | 3.39  | 3.85   | 3.81   |
| γ 130.0 | 3.67 | 3.50  | 3.96   | 3.90   |
| γ 131.0 | 3.75 | 3.61  | 4.07   | 3.99   |
| γ 132.0 | 3.85 | 3.72  | 4.20   | 4.09   |
| γ 133.0 | 3.95 | 3.84  | 4.32   | 4.18   |
| γ 134.0 | 4.06 | 3.96  | 4.46   | 4.31   |
| γ 135.0 | 4.19 | 4.09  | 4.61   | 4.43   |
| γ 136.0 | 4.32 | 4.24  | 4.76   | 4.57   |
| γ 137.0 | 4.45 | 4.40  | 4.92   | 4.71   |
| γ 138.0 | 4.59 | 4.54  | 5.09   | 4.86   |
| γ 139.0 | 4.74 | 4.70  | 5.24   | 5.01   |
| γ 140.0 | 4.90 | 4.86  | 5.42   | 5.16   |

Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 5.05 | 5.03  | 5.59   | 5.34   |
| γ 142.0 | 5.20 | 5.18  | 5.76   | 5.50   |
| γ 143.0 | 5.36 | 5.34  | 5.93   | 5.65   |
| γ 144.0 | 5.53 | 5.51  | 6.09   | 5.84   |
| γ 145.0 | 5.69 | 5.67  | 6.25   | 5.98   |
| γ 146.0 | 5.84 | 5.82  | 6.39   | 6.14   |
| γ 147.0 | 5.99 | 5.97  | 6.54   | 6.26   |
| γ 148.0 | 6.14 | 6.11  | 6.66   | 6.41   |
| γ 149.0 | 6.30 | 6.25  | 6.78   | 6.53   |
| γ 150.0 | 6.42 | 6.38  | 6.91   | 6.66   |
| γ 151.0 | 6.56 | 6.51  | 7.02   | 6.76   |
| γ 152.0 | 6.68 | 6.62  | 7.13   | 6.86   |
| γ 153.0 | 6.80 | 6.73  | 7.23   | 6.97   |
| γ 154.0 | 6.92 | 6.83  | 7.34   | 7.05   |
| γ 155.0 | 7.03 | 6.93  | 7.43   | 7.14   |
| γ 156.0 | 7.13 | 7.03  | 7.54   | 7.23   |
| γ 157.0 | 7.24 | 7.12  | 7.63   | 7.30   |
| γ 158.0 | 7.34 | 7.20  | 7.73   | 7.39   |
| γ 159.0 | 7.44 | 7.29  | 7.82   | 7.46   |
| γ 160.0 | 7.54 | 7.39  | 7.89   | 7.54   |
| γ 161.0 | 7.63 | 7.47  | 7.98   | 7.61   |
| γ 162.0 | 7.72 | 7.56  | 8.06   | 7.68   |
| γ 163.0 | 7.80 | 7.65  | 8.14   | 7.75   |
| γ 164.0 | 7.89 | 7.74  | 8.19   | 7.83   |
| γ 165.0 | 7.97 | 7.83  | 8.26   | 7.88   |
| γ 166.0 | 8.06 | 7.91  | 8.31   | 7.97   |
| γ 167.0 | 8.14 | 7.99  | 8.37   | 8.03   |
| γ 168.0 | 8.21 | 8.06  | 8.44   | 8.09   |
| γ 169.0 | 8.27 | 8.13  | 8.48   | 8.15   |
| γ 170.0 | 8.32 | 8.19  | 8.51   | 8.20   |
| γ 171.0 | 8.37 | 8.24  | 8.54   | 8.25   |
| γ 172.0 | 8.41 | 8.27  | 8.57   | 8.29   |
| γ 173.0 | 8.45 | 8.31  | 8.58   | 8.32   |
| γ 174.0 | 8.48 | 8.33  | 8.61   | 8.34   |
| γ 175.0 | 8.50 | 8.35  | 8.62   | 8.36   |
| γ 176.0 | 8.50 | 8.36  | 8.62   | 8.38   |
| γ 177.0 | 8.51 | 8.38  | 8.61   | 8.38   |
| γ 178.0 | 8.51 | 8.40  | 8.62   | 8.41   |
| γ 179.0 | 8.51 | 8.41  | 8.64   | 8.42   |
| γ 180.0 | 8.53 | 8.53  | 8.53   | 8.53   |