

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P937178

Luminaire Tested: SQ4-FB-075U-075D-B2750-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

**Test Information**

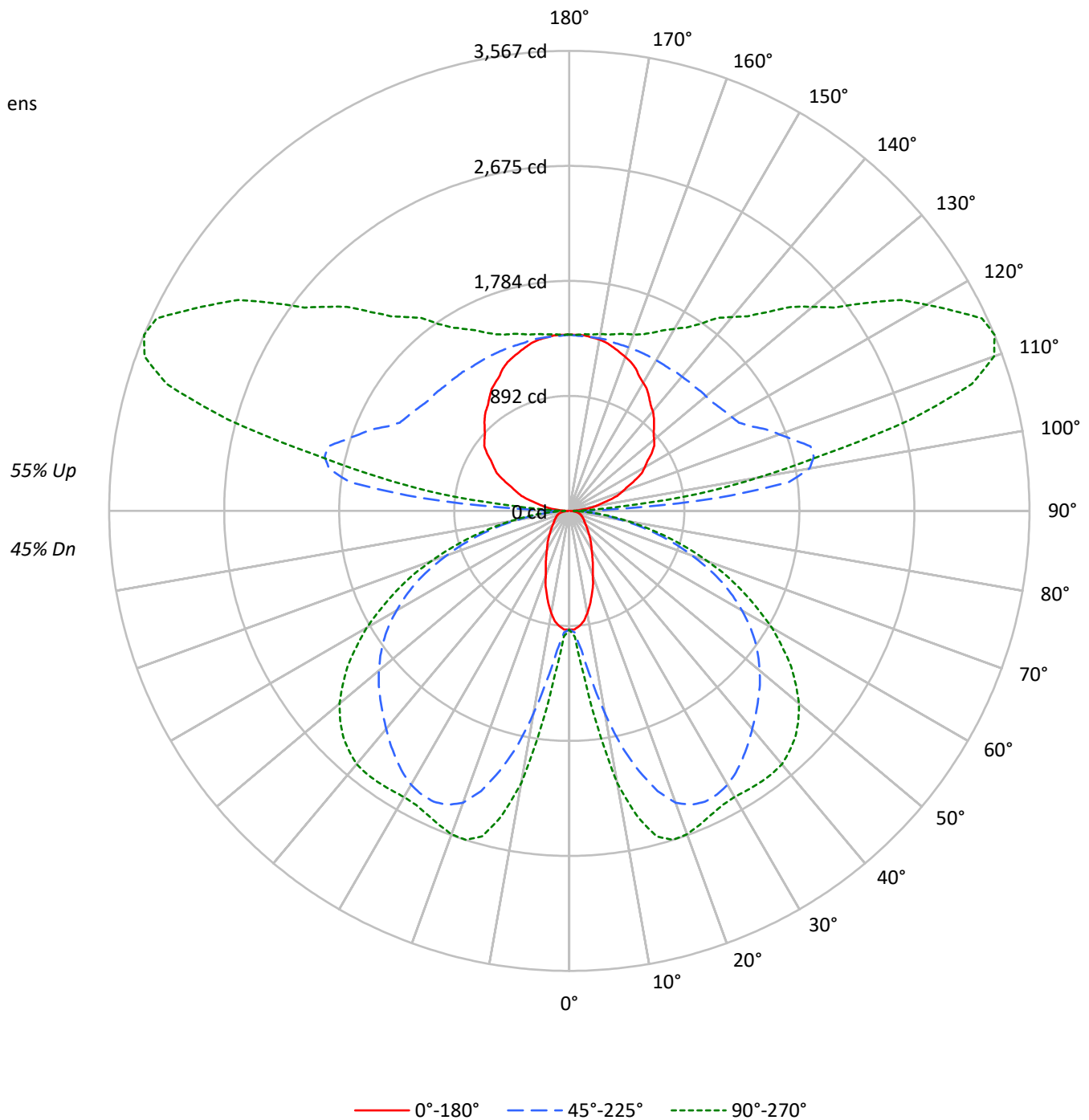
Test Method: LM-79-2019  
Report Number: P937178  
REPORT IS A COMBINATION OF REPORTS P933494 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-075D-B2750-1D-UNV-STD-W-12-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15979.1 lumens  
Efficiency: N/A  
Efficacy: 125.6 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 127.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	80	77	70	67	65	57	55	53	44	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	38	36	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	65	56	49	43	46	41	37	38	34	31	30	27	24	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	21	25	20	17	20	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	17	14	16	13	11	9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2845	2845	2845
5°	2781	3289	3825
10°	2523	4797	6341
15°	2145	6268	7657
20°	1747	7265	7803
25°	1458	7605	7645
30°	1230	7655	7630
35°	1088	7530	7828
40°	949	7367	8032
45°	860	7248	8063
50°	789	7142	7930
55°	757	6985	7578
60°	776	6681	7023
65°	808	6218	6261
70°	863	5426	5289
75°	960	4428	4127
80°	1056	3075	2781
85°	959	1634	1423

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8063 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.0	0.7
10°-20°	527.4	3.3
20°-30°	922.5	5.8
30°-40°	1187.6	7.4
40°-50°	1326.5	8.3
50°-60°	1270.5	8.0
60°-70°	1006.9	6.3
70°-80°	592.0	3.7
80°-90°	169.7	1.1
90°-100°	666.0	4.2
100°-110°	1750.9	11.0
110°-120°	1815.5	11.4
120°-130°	1456.3	9.1
130°-140°	1142.6	7.2
140°-150°	877.0	5.5
150°-160°	631.6	4.0
160°-170°	386.5	2.4
170°-180°	130.6	0.8
0°-30°	1569.0	9.8
0°-40°	2756.6	17.3
0°-60°	5353.6	33.5
0°-90°	7122.1	44.6
90°-120°	4232.4	26.5
90°-150°	7708.3	48.2
90°-180°	8857.0	55.4
0°-180°	15979.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	896	961	1083	1225	1269	83
15°	672	1240	2088	2532	2612	187
25°	429	1405	2488	2597	2600	198
35°	290	1343	2343	2476	2574	181
45°	198	1071	2071	2372	2479	153
55°	142	680	1757	2041	2097	129
65°	112	361	1305	1467	1488	111
75°	83	222	716	787	790	87
85°	30	68	178	195	198	31
90°	9	26	70	35	35	10
95°	88	345	1147	591	403	98
105°	315	478	1936	2939	2742	334
115°	560	680	1551	3093	3530	553
125°	779	874	1410	2383	2811	692
135°	929	1022	1366	1924	2181	719
145°	1077	1146	1349	1641	1770	675
155°	1218	1252	1349	1481	1524	560
165°	1314	1331	1349	1402	1419	371
175°	1366	1366	1358	1376	1376	130
180°	1366	1366	1366	1366	1366	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9
2.5°	919.9	919.9	925.9	928.8	934.7	937.7	943.6	949.5	967.3	970.2	976.1
5°	896.3	908.1	946.6	961.4	1002.8	1059.0	1082.6	1121.2	1201.0	1224.7	1239.5
7.5°	860.8	887.4	982.1	1005.7	1109.2	1257.2	1319.4	1402.2	1529.4	1591.5	1641.8
10°	804.6	860.8	1029.4	1085.6	1254.3	1479.1	1594.5	1709.8	1902.1	1987.9	2020.4
12.5°	742.5	834.2	1079.7	1156.7	1399.2	1727.6	1866.6	1993.8	2212.7	2328.0	2345.8
15°	671.5	795.7	1127.1	1239.5	1553.0	1934.6	2088.4	2245.2	2449.3	2532.1	2552.9
17.5°	609.3	766.1	1171.5	1289.8	1671.4	2121.0	2277.8	2407.9	2573.6	2629.8	2644.6
20°	532.4	718.8	1201.0	1354.9	1795.6	2257.1	2407.9	2508.5	2620.9	2656.4	2662.3
22.5°	476.2	668.5	1218.8	1378.5	1878.4	2339.9	2467.1	2546.9	2623.8	2635.7	2638.6
25°	428.9	612.3	1215.8	1405.1	1949.4	2390.2	2487.8	2546.9	2591.3	2597.2	2597.2
27.5°	384.5	550.2	1204.0	1411.1	2002.7	2402.0	2478.9	2520.3	2541.0	2552.9	2552.9
30°	346.1	491.0	1174.4	1399.2	2026.3	2390.2	2452.3	2473.0	2493.7	2511.4	2520.3
32.5°	316.5	434.8	1130.1	1375.6	2029.3	2360.6	2405.0	2416.8	2446.4	2487.8	2502.6
35°	289.9	378.6	1079.7	1343.0	2011.5	2313.3	2342.8	2354.7	2413.8	2475.9	2496.7
37.5°	263.3	337.2	1014.6	1286.8	1984.9	2257.1	2277.8	2298.5	2390.2	2464.1	2487.8
40°	236.6	301.7	937.7	1224.7	1943.5	2189.0	2206.8	2239.3	2360.6	2446.4	2470.0
42.5°	215.9	272.1	854.9	1159.6	1890.3	2112.1	2138.7	2186.1	2325.1	2416.8	2443.4
45°	198.2	242.6	766.1	1070.8	1822.2	2032.2	2070.7	2135.8	2283.7	2372.4	2396.1
47.5°	180.4	221.8	674.4	979.1	1748.3	1952.4	2002.7	2076.6	2227.5	2313.3	2334.0
50°	165.6	201.1	582.7	881.5	1668.4	1866.6	1925.8	2002.7	2156.5	2236.3	2263.0
52.5°	153.8	183.4	496.9	783.9	1576.7	1777.9	1845.9	1925.8	2070.7	2147.6	2165.4
55°	142.0	168.6	423.0	680.3	1482.1	1683.2	1757.2	1834.1	1976.0	2041.1	2053.0
57.5°	136.1	156.8	360.9	582.7	1381.5	1576.7	1659.5	1730.5	1863.6	1913.9	1925.8
60°	127.2	147.9	313.5	499.9	1272.0	1476.1	1547.1	1618.1	1730.5	1771.9	1780.8
62.5°	118.3	142.0	278.1	420.0	1159.6	1357.8	1428.8	1493.9	1588.5	1618.1	1630.0
65°	112.4	136.1	251.4	360.9	1044.2	1233.6	1304.6	1360.8	1437.7	1467.3	1473.2
67.5°	106.5	130.2	230.7	310.6	928.8	1109.2	1162.6	1215.8	1275.0	1304.6	1307.5
70°	97.6	124.2	213.0	275.1	810.5	967.3	1011.6	1067.8	1115.2	1130.1	1138.9
72.5°	91.7	115.4	201.1	248.5	689.2	831.2	872.6	905.1	946.6	961.4	961.4
75°	82.8	103.5	189.3	221.8	565.0	680.3	715.8	748.4	780.9	786.8	778.0
77.5°	74.0	91.7	162.7	186.4	440.7	538.4	567.9	585.7	612.3	618.2	621.2
80°	62.1	79.9	127.2	144.9	319.5	396.4	417.1	431.9	455.5	455.5	461.4
82.5°	47.3	62.1	91.7	103.5	215.9	272.1	289.9	298.8	313.5	313.5	313.5
85°	29.6	38.5	59.2	68.0	130.2	165.6	177.5	180.4	192.3	195.2	195.2
87.5°	14.8	20.7	38.5	41.4	68.0	85.8	85.8	91.7	91.7	88.7	85.8
90°	9.2	16.5	23.8	25.6	40.3	59.9	69.7	61.9	46.4	34.8	34.8
92.5°	36.7	99.0	161.4	177.0	248.8	344.5	392.4	343.9	247.0	174.2	167.3
95°	88.0	202.1	316.3	344.8	612.2	968.8	1147.1	1023.7	776.7	591.4	570.4
97.5°	152.2	252.9	353.6	378.7	824.7	1419.2	1716.5	1638.4	1482.4	1365.3	1325.4
100°	201.7	293.0	384.3	407.1	902.0	1561.7	1891.6	1897.4	1908.8	1917.4	1869.8
102.5°	243.9	329.1	414.2	435.5	937.4	1606.6	1941.2	2040.6	2239.5	2388.7	2348.0
105°	315.4	387.6	459.7	477.7	963.7	1611.7	1935.7	2158.6	2604.5	2938.9	2917.0
107.5°	388.8	456.0	523.3	540.1	968.6	1540.0	1825.7	2136.7	2758.5	3224.9	3230.2
110°	438.3	499.0	559.8	574.9	961.3	1476.4	1734.0	2081.6	2776.9	3298.3	3321.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	486.9	544.8	602.6	617.1	961.6	1420.9	1650.6	2006.3	2717.9	3251.5	3286.5
115°	560.2	613.6	667.0	680.3	970.4	1357.2	1550.6	1893.3	2578.8	3092.9	3141.5
117.5°	632.7	681.2	729.6	741.8	988.5	1317.3	1481.8	1791.1	2409.7	2873.7	2927.6
120°	674.9	720.6	766.1	777.6	1003.2	1303.9	1454.3	1736.8	2302.1	2726.1	2778.4
122.5°	716.1	762.2	808.2	819.8	1024.3	1296.9	1433.2	1687.6	2196.7	2578.5	2630.2
125°	779.4	821.4	863.4	873.9	1052.7	1291.1	1410.3	1626.5	2058.9	2383.2	2430.8
127.5°	830.8	873.2	915.6	926.1	1081.1	1287.7	1391.0	1576.7	1947.9	2226.4	2266.5
130°	858.3	904.0	949.5	961.0	1101.9	1289.7	1383.7	1548.9	1879.4	2127.3	2164.4
132.5°	886.7	932.4	977.9	989.4	1118.6	1291.1	1377.2	1525.1	1821.0	2043.0	2076.2
135°	928.9	970.4	1012.0	1022.4	1137.1	1289.9	1366.3	1490.1	1737.9	1923.8	1952.4
137.5°	972.0	1013.1	1054.3	1064.6	1164.6	1297.8	1364.4	1469.1	1678.7	1835.7	1859.2
140°	1007.7	1045.6	1083.5	1093.0	1181.3	1299.2	1358.0	1448.5	1629.5	1765.1	1787.0
142.5°	1035.2	1070.3	1105.3	1114.1	1195.4	1303.8	1358.0	1437.5	1596.4	1715.6	1734.5
145°	1077.4	1108.0	1138.5	1146.2	1213.8	1303.8	1348.8	1413.8	1543.9	1641.4	1655.7
147.5°	1119.6	1149.4	1179.2	1186.6	1240.7	1312.8	1348.8	1400.0	1502.3	1579.0	1590.8
150°	1147.1	1174.0	1200.9	1207.7	1254.7	1317.5	1348.8	1392.0	1478.4	1543.2	1552.8
152.5°	1175.5	1195.9	1216.2	1221.4	1263.9	1320.5	1348.8	1385.7	1459.5	1514.8	1522.0
155°	1217.7	1232.8	1247.9	1251.6	1284.1	1327.3	1348.8	1378.2	1436.9	1480.9	1485.7
157.5°	1248.9	1263.6	1278.3	1281.9	1304.2	1334.0	1348.8	1371.6	1417.3	1451.5	1454.8
160°	1270.0	1281.4	1292.8	1295.7	1313.5	1337.0	1348.8	1368.4	1407.5	1436.9	1438.9
162.5°	1291.1	1299.6	1308.1	1310.3	1323.1	1340.3	1348.8	1365.3	1398.3	1423.1	1425.0
165°	1314.0	1321.7	1329.4	1331.4	1337.2	1345.0	1348.8	1360.7	1384.2	1402.0	1404.0
167.5°	1335.0	1338.7	1342.4	1343.3	1348.3	1354.8	1358.0	1365.7	1381.2	1392.8	1393.6
170°	1348.8	1352.5	1356.2	1357.1	1357.4	1357.8	1358.0	1365.7	1381.2	1392.8	1392.8
172.5°	1356.1	1356.9	1357.8	1358.0	1358.0	1358.0	1358.0	1364.1	1376.4	1385.5	1384.8
175°	1366.3	1366.3	1366.3	1366.3	1363.5	1359.9	1358.0	1361.9	1369.7	1375.5	1375.5
177.5°	1366.3	1366.3	1366.3	1366.3	1364.1	1361.3	1359.9	1362.9	1369.1	1373.6	1372.8
180°	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3	1366.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	919.9	919.9
2.5°	982.1	976.1
5°	1263.2	1269.1
7.5°	1700.9	1698.0
10°	2115.1	2141.7
12.5°	2416.8	2422.7
15°	2600.2	2612.0
17.5°	2671.2	2674.1
20°	2674.1	2668.2
22.5°	2641.6	2635.7
25°	2603.1	2600.2
27.5°	2567.6	2570.6
30°	2552.9	2561.7
32.5°	2552.9	2567.6
35°	2558.8	2573.6
37.5°	2555.8	2573.6
40°	2544.0	2564.7
42.5°	2511.4	2526.2
45°	2461.2	2478.9
47.5°	2396.1	2407.9
50°	2313.3	2325.1
52.5°	2209.7	2212.7
55°	2085.5	2097.3
57.5°	1952.4	1955.3
60°	1804.5	1813.4
62.5°	1647.7	1647.7
65°	1482.1	1488.0
67.5°	1310.5	1325.3
70°	1136.0	1138.9
72.5°	964.3	964.3
75°	786.8	789.8
77.5°	618.2	618.2
80°	458.5	461.4
82.5°	316.5	322.4
85°	198.2	198.2
87.5°	91.7	82.8
90°	34.8	34.8
92.5°	139.6	111.9
95°	486.5	402.6
97.5°	1165.6	1005.9
100°	1679.5	1489.2
102.5°	2184.9	2021.9
105°	2829.3	2741.7
107.5°	3251.4	3272.6
110°	3412.3	3503.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3426.7	3567.0
115°	3335.8	3530.3
117.5°	3143.2	3358.8
120°	2988.0	3197.4
122.5°	2836.7	3043.4
125°	2621.1	2811.4
127.5°	2427.1	2587.7
130°	2312.8	2461.2
132.5°	2209.0	2341.9
135°	2067.0	2181.4
137.5°	1952.9	2046.6
140°	1874.7	1962.2
142.5°	1809.9	1885.2
145°	1712.7	1769.7
147.5°	1638.0	1685.4
150°	1591.1	1629.5
152.5°	1551.0	1579.9
155°	1504.8	1524.0
157.5°	1468.4	1481.8
160°	1446.6	1454.3
162.5°	1432.3	1439.7
165°	1411.7	1419.4
167.5°	1397.0	1400.2
170°	1392.8	1392.8
172.5°	1382.0	1379.1
175°	1375.5	1375.5
177.5°	1369.6	1366.3
180°	1366.3	1366.3



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	4.13	4.97	5.12	5.99	7.33	17.32	18.17	18.31	19.18	20.52
	3H	4.83	5.59	5.84	6.61	7.98	19.16	19.92	20.17	20.94	22.31
	4H	5.13	5.85	6.15	6.87	8.25	19.81	20.53	20.83	21.56	22.93
	6H	5.38	6.04	6.41	7.07	8.46	20.24	20.91	21.27	21.94	23.32
	8H	5.45	6.08	6.48	7.12	8.51	20.37	21.00	21.40	22.05	23.43
	12H	5.46	6.07	6.50	7.10	8.51	20.44	21.04	21.48	22.08	23.49
4H	2H	11.35	12.07	12.37	13.09	14.47	17.59	18.31	18.62	19.34	20.71
	3H	12.91	13.52	13.95	14.57	15.96	19.64	20.24	20.67	21.30	22.68
	4H	13.01	13.56	14.05	14.61	16.01	20.41	20.96	21.45	22.01	23.42
	6H	13.02	13.50	14.07	14.56	15.96	20.95	21.43	22.00	22.50	23.90
	8H	12.99	13.44	14.05	14.50	15.92	21.12	21.56	22.17	22.62	24.04
	12H	12.95	13.35	14.02	14.43	15.85	21.21	21.62	22.28	22.69	24.12
8H	4H	14.46	14.90	15.51	15.96	17.38	20.47	20.92	21.52	21.97	23.39
	6H	14.70	15.07	15.77	16.17	17.58	21.10	21.47	22.18	22.57	23.99
	8H	14.71	15.04	15.80	16.12	17.56	21.32	21.65	22.41	22.73	24.17
	12H	14.68	14.97	15.77	16.05	17.52	21.47	21.76	22.56	22.84	24.31
12H	4H	14.60	15.00	15.67	16.08	17.50	20.42	20.83	21.49	21.90	23.32
	6H	14.96	15.28	16.04	16.37	17.80	21.08	21.41	22.17	22.50	23.93
	8H	15.02	15.31	16.11	16.39	17.87	21.32	21.60	22.40	22.68	24.16