

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: P937117

Luminaire Tested: SQ4-FB-075U-075D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

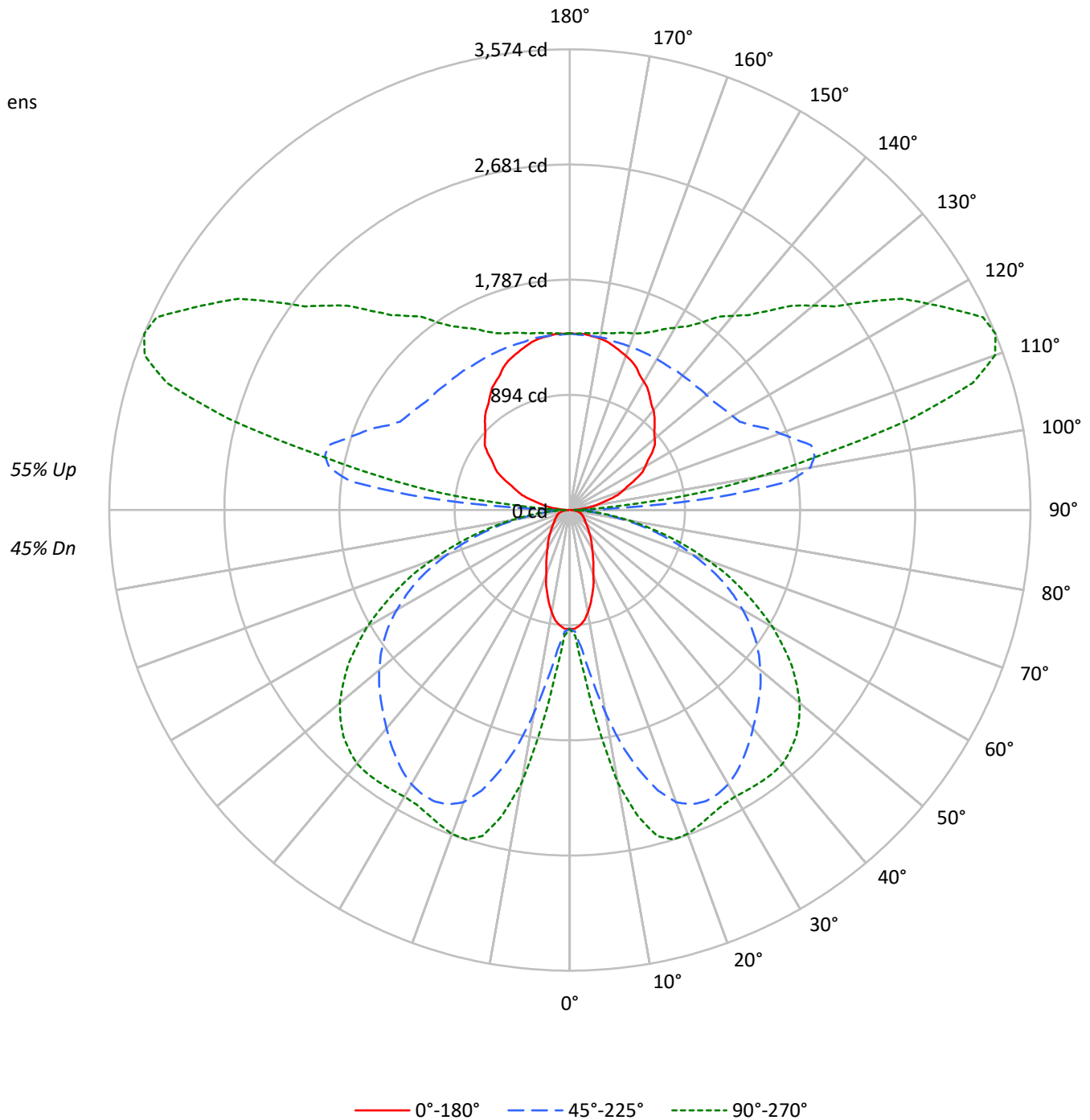
Test Method: LM-79-2019  
Report Number: P937117  
REPORT IS A COMBINATION OF REPORTS P933494 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-075D-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16011.5 lumens  
Efficiency: N/A  
Efficacy: 125.9 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				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	50	30	10	0
RCR																					
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	80	77	70	67	65	57	55	53	44	43	42	37	37	37	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	38	36	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	65	56	49	43	46	41	37	38	34	31	30	27	24	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	17	17	17	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	24	21	25	20	17	20	16	14	11	11	11	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10	10	10	10
10	44	32	25	20	41	30	23	19	25	20	16	21	17	14	16	13	11	9	9	9	9

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

	0°	45°	90°
0°	2851	2851	2851
5°	2786	3296	3833
10°	2528	4806	6354
15°	2150	6281	7672
20°	1751	7280	7819
25°	1461	7620	7660
30°	1233	7671	7646
35°	1091	7545	7844
40°	951	7381	8048
45°	862	7263	8079
50°	791	7156	7946
55°	758	6999	7594
60°	778	6695	7037
65°	810	6231	6273
70°	865	5437	5300
75°	962	4437	4136
80°	1058	3081	2787
85°	959	1637	1426

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8079 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.2	0.7
10°-20°	528.5	3.3
20°-30°	924.4	5.8
30°-40°	1190.0	7.4
40°-50°	1329.2	8.3
50°-60°	1273.1	8.0
60°-70°	1008.9	6.3
70°-80°	593.2	3.7
80°-90°	170.0	1.1
90°-100°	667.3	4.2
100°-110°	1754.5	11.0
110°-120°	1819.2	11.4
120°-130°	1459.2	9.1
130°-140°	1145.0	7.2
140°-150°	878.8	5.5
150°-160°	632.9	4.0
160°-170°	387.2	2.4
170°-180°	130.8	0.8
0°-30°	1572.2	9.8
0°-40°	2762.2	17.3
0°-60°	5364.4	33.5
0°-90°	7136.6	44.6
90°-120°	4241.0	26.5
90°-150°	7724.0	48.2
90°-180°	8875.0	55.4
0°-180°	16011.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	898	963	1085	1227	1272	83
15°	673	1242	2093	2537	2617	187
25°	430	1408	2493	2602	2606	198
35°	290	1346	2348	2481	2579	181
45°	199	1073	2075	2377	2484	154
55°	142	682	1761	2045	2102	130
65°	113	362	1307	1470	1491	112
75°	83	222	717	788	791	87
85°	30	68	178	196	199	31
90°	9	26	70	35	35	10
95°	88	346	1149	593	403	98
105°	316	479	1940	2945	2747	335
115°	561	682	1554	3099	3537	554
125°	781	876	1413	2388	2817	693
135°	931	1024	1369	1928	2186	720
145°	1080	1149	1352	1645	1773	676
155°	1220	1254	1352	1484	1527	561
165°	1317	1334	1352	1405	1422	372
175°	1369	1369	1361	1378	1378	130
180°	1369	1369	1369	1369	1369	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8	921.8
2.5°	921.8	921.8	927.7	930.7	936.6	939.6	945.5	951.4	969.2	972.2	978.1
5°	898.1	909.9	948.5	963.3	1004.8	1061.1	1084.8	1123.5	1203.5	1227.2	1242.0
7.5°	862.5	889.2	984.0	1007.8	1111.5	1259.8	1322.0	1405.0	1532.5	1594.7	1645.1
10°	806.2	862.5	1031.5	1087.8	1256.8	1482.1	1597.7	1713.3	1906.0	1991.9	2024.5
12.5°	744.0	835.8	1081.9	1159.0	1402.1	1731.1	1870.4	1997.8	2217.2	2332.8	2350.6
15°	672.8	797.3	1129.4	1242.0	1556.2	1938.6	2092.7	2249.8	2454.3	2537.3	2558.0
17.5°	610.6	767.7	1173.8	1292.4	1674.8	2125.3	2282.4	2412.8	2578.8	2635.1	2649.9
20°	533.5	720.3	1203.5	1357.6	1799.2	2261.6	2412.8	2513.6	2626.2	2661.8	2667.7
22.5°	477.2	669.9	1221.3	1381.3	1882.2	2344.6	2472.1	2552.1	2629.2	2641.0	2644.0
25°	429.8	613.5	1218.3	1408.0	1953.4	2395.0	2492.8	2552.1	2596.6	2602.5	2602.5
27.5°	385.3	551.3	1206.4	1413.9	2006.7	2406.9	2483.9	2525.4	2546.2	2558.0	2558.0
30°	346.8	492.0	1176.8	1402.1	2030.4	2395.0	2457.3	2478.0	2498.8	2516.5	2525.4
32.5°	317.1	435.7	1132.3	1378.4	2033.4	2365.4	2409.8	2421.7	2451.3	2492.8	2507.6
35°	290.5	379.4	1081.9	1345.8	2015.6	2317.9	2347.6	2359.4	2418.7	2481.0	2501.7
37.5°	263.8	337.9	1016.7	1289.4	1988.9	2261.6	2282.4	2303.1	2395.0	2469.1	2492.8
40°	237.1	302.3	939.6	1227.2	1947.4	2193.5	2211.2	2243.8	2365.4	2451.3	2475.0
42.5°	216.4	272.7	856.6	1162.0	1894.1	2116.4	2143.1	2190.5	2329.8	2421.7	2448.4
45°	198.6	243.0	767.7	1073.0	1825.9	2036.4	2074.9	2140.1	2288.3	2377.2	2400.9
47.5°	180.8	222.3	675.8	981.1	1751.8	1956.3	2006.7	2080.8	2232.0	2317.9	2338.7
50°	166.0	201.6	583.9	883.3	1671.8	1870.4	1929.7	2006.7	2160.9	2240.9	2267.6
52.5°	154.1	183.8	498.0	785.5	1579.9	1781.5	1849.6	1929.7	2074.9	2152.0	2169.7
55°	142.3	168.9	423.9	681.7	1485.1	1686.6	1760.7	1837.8	1980.1	2045.3	2057.1
57.5°	136.3	157.1	361.6	583.9	1384.3	1579.9	1662.9	1734.0	1867.4	1917.8	1929.7
60°	127.5	148.2	314.2	500.9	1274.6	1479.1	1550.3	1621.4	1734.0	1775.5	1784.4
62.5°	118.6	142.3	278.6	420.9	1162.0	1360.6	1431.7	1496.9	1591.8	1621.4	1633.3
65°	112.6	136.3	251.9	361.6	1046.3	1236.1	1307.2	1363.5	1440.6	1470.2	1476.2
67.5°	106.7	130.4	231.2	311.2	930.7	1111.5	1165.0	1218.3	1277.6	1307.2	1310.2
70°	97.8	124.5	213.4	275.7	812.1	969.2	1013.7	1070.0	1117.4	1132.3	1141.2
72.5°	91.9	115.6	201.6	249.0	690.6	832.9	874.4	907.0	948.5	963.3	963.3
75°	83.0	103.7	189.7	222.3	566.1	681.7	717.3	749.9	782.5	788.4	779.5
77.5°	74.1	91.9	163.0	186.7	441.6	539.4	569.1	586.9	613.5	619.5	622.4
80°	62.2	80.0	127.5	145.2	320.1	397.2	417.9	432.7	456.5	456.5	462.4
82.5°	47.4	62.2	91.9	103.7	216.4	272.7	290.5	299.4	314.2	314.2	314.2
85°	29.6	38.5	59.3	68.2	130.4	166.0	177.8	180.8	192.7	195.6	195.6
87.5°	14.8	20.7	38.5	41.5	68.2	86.0	86.0	91.9	91.9	88.9	86.0
90°	9.2	16.5	23.8	25.7	40.4	60.1	69.9	62.0	46.5	34.9	34.9
92.5°	36.8	99.2	161.7	177.3	249.3	345.2	393.2	344.6	247.5	174.6	167.7
95°	88.2	202.5	317.0	345.5	613.4	970.8	1149.4	1025.7	778.2	592.6	571.6
97.5°	152.5	253.4	354.3	379.5	826.4	1422.1	1720.0	1641.8	1485.4	1368.1	1328.1
100°	202.1	293.6	385.1	407.9	903.8	1564.9	1895.5	1901.2	1912.7	1921.3	1873.5
102.5°	244.4	329.8	415.1	436.4	939.3	1609.8	1945.2	2044.8	2244.0	2393.5	2352.7
105°	316.1	388.4	460.6	478.7	965.7	1615.0	1939.6	2163.0	2609.8	2944.8	2922.9
107.5°	389.6	457.0	524.3	541.2	970.6	1543.2	1829.4	2141.0	2764.1	3231.5	3236.8
110°	439.2	500.0	560.9	576.1	963.2	1479.4	1737.5	2085.9	2782.5	3305.0	3327.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	487.9	545.9	603.9	618.4	963.6	1423.8	1653.9	2010.4	2723.4	3258.1	3293.2
115°	561.4	614.8	668.4	681.7	972.4	1360.0	1553.7	1897.2	2584.0	3099.2	3147.9
117.5°	634.0	682.6	731.1	743.3	990.5	1320.0	1484.8	1794.7	2414.6	2879.5	2933.6
120°	676.3	722.0	767.7	779.1	1005.2	1306.5	1457.2	1740.4	2306.8	2731.6	2784.1
122.5°	717.6	763.7	809.9	821.4	1026.3	1299.5	1436.1	1691.1	2201.2	2583.7	2635.5
125°	781.0	823.1	865.2	875.7	1054.8	1293.7	1413.1	1629.8	2063.0	2388.0	2435.7
127.5°	832.5	875.0	917.5	928.0	1083.3	1290.3	1393.9	1579.9	1951.9	2230.9	2271.1
130°	860.1	905.8	951.4	962.9	1104.1	1292.3	1386.5	1552.0	1883.2	2131.6	2168.8
132.5°	888.5	934.3	979.9	991.4	1120.9	1293.7	1380.0	1528.2	1824.7	2047.1	2080.4
135°	930.8	972.4	1014.1	1024.5	1139.4	1292.5	1369.1	1493.2	1741.4	1927.7	1956.3
137.5°	974.0	1015.2	1056.5	1066.7	1166.9	1300.4	1367.2	1472.1	1682.1	1839.5	1863.0
140°	1009.7	1047.7	1085.7	1095.2	1183.7	1301.8	1360.8	1451.5	1632.8	1768.7	1790.7
142.5°	1037.3	1072.5	1107.5	1116.3	1197.9	1306.4	1360.8	1440.4	1599.7	1719.1	1738.0
145°	1079.6	1110.2	1140.8	1148.6	1216.2	1306.4	1351.6	1416.7	1547.0	1644.7	1659.0
147.5°	1121.9	1151.7	1181.5	1189.0	1243.2	1315.4	1351.6	1402.9	1505.3	1582.2	1594.0
150°	1149.4	1176.4	1203.4	1210.1	1257.2	1320.2	1351.6	1394.9	1481.4	1546.3	1555.9
152.5°	1177.9	1198.3	1218.7	1223.8	1266.4	1323.2	1351.6	1388.5	1462.4	1517.9	1525.1
155°	1220.2	1235.3	1250.4	1254.2	1286.7	1329.9	1351.6	1381.0	1439.8	1483.9	1488.7
157.5°	1251.4	1266.1	1280.8	1284.5	1306.8	1336.7	1351.6	1374.4	1420.2	1454.4	1457.8
160°	1272.5	1284.0	1295.5	1298.3	1316.1	1339.7	1351.6	1371.1	1410.4	1439.8	1441.8
162.5°	1293.7	1302.3	1310.8	1313.0	1325.8	1343.0	1351.6	1368.1	1401.2	1426.0	1427.9
165°	1316.7	1324.4	1332.1	1334.1	1339.9	1347.7	1351.6	1363.4	1387.1	1404.8	1406.8
167.5°	1337.8	1341.4	1345.2	1346.1	1351.0	1357.5	1360.8	1368.5	1384.0	1395.6	1396.4
170°	1351.6	1355.2	1359.0	1359.9	1360.2	1360.6	1360.8	1368.5	1384.0	1395.6	1395.6
172.5°	1358.9	1359.7	1360.6	1360.8	1360.8	1360.8	1360.8	1366.9	1379.1	1388.3	1387.6
175°	1369.1	1369.1	1369.1	1369.1	1366.3	1362.6	1360.8	1364.6	1372.4	1378.3	1378.3
177.5°	1369.1	1369.1	1369.1	1369.1	1366.9	1364.0	1362.6	1365.7	1371.8	1376.4	1375.6
180°	1369.1	1369.1	1369.1	1369.1	1369.1	1369.1	1369.1	1369.1	1369.1	1369.1	1369.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	921.8	921.8
2.5°	984.0	978.1
5°	1265.7	1271.7
7.5°	1704.4	1701.4
10°	2119.4	2146.0
12.5°	2421.7	2427.6
15°	2605.5	2617.3
17.5°	2676.6	2679.6
20°	2679.6	2673.6
22.5°	2647.0	2641.0
25°	2608.4	2605.5
27.5°	2572.9	2575.8
30°	2558.0	2566.9
32.5°	2558.0	2572.9
35°	2564.0	2578.8
37.5°	2561.0	2578.8
40°	2549.1	2569.9
42.5°	2516.5	2531.4
45°	2466.1	2483.9
47.5°	2400.9	2412.8
50°	2317.9	2329.8
52.5°	2214.2	2217.2
55°	2089.7	2101.6
57.5°	1956.3	1959.3
60°	1808.1	1817.0
62.5°	1651.0	1651.0
65°	1485.1	1491.0
67.5°	1313.2	1328.0
70°	1138.3	1141.2
72.5°	966.3	966.3
75°	788.4	791.4
77.5°	619.5	619.5
80°	459.4	462.4
82.5°	317.1	323.1
85°	198.6	198.6
87.5°	91.9	83.0
90°	34.9	34.9
92.5°	139.9	112.1
95°	487.5	403.4
97.5°	1168.0	1008.0
100°	1682.9	1492.2
102.5°	2189.3	2026.0
105°	2835.1	2747.2
107.5°	3258.0	3279.3
110°	3419.3	3510.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3433.7	3574.2
115°	3342.6	3537.4
117.5°	3149.5	3365.6
120°	2994.0	3203.9
122.5°	2842.5	3049.6
125°	2626.4	2817.1
127.5°	2432.1	2592.9
130°	2317.5	2466.1
132.5°	2213.5	2346.7
135°	2071.1	2185.9
137.5°	1956.8	2050.8
140°	1878.5	1966.2
142.5°	1813.6	1889.1
145°	1716.2	1773.3
147.5°	1641.4	1688.8
150°	1594.3	1632.8
152.5°	1554.1	1583.1
155°	1507.9	1527.1
157.5°	1471.3	1484.8
160°	1449.5	1457.2
162.5°	1435.2	1442.6
165°	1414.5	1422.3
167.5°	1399.8	1403.1
170°	1395.6	1395.6
172.5°	1384.8	1381.9
175°	1378.3	1378.3
177.5°	1372.3	1369.1
180°	1369.1	1369.1



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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	4.98	5.13	5.99	7.34	17.33	18.17	18.32	19.18	20.53
	3H	4.84	5.60	5.84	6.62	7.98	19.17	19.93	20.17	20.95	22.32
	4H	5.13	5.86	6.15	6.88	8.25	19.82	20.54	20.84	21.56	22.93
	6H	5.38	6.05	6.41	7.08	8.46	20.25	20.92	21.28	21.95	23.33
	8H	5.45	6.09	6.49	7.13	8.51	20.37	21.01	21.41	22.05	23.43
	12H	5.47	6.07	6.51	7.11	8.52	20.44	21.05	21.48	22.09	23.49
4H	2H	11.36	12.08	12.38	13.10	14.47	17.60	18.32	18.62	19.34	20.71
	3H	12.92	13.53	13.95	14.58	15.96	19.65	20.25	20.68	21.30	22.69
	4H	13.01	13.57	14.06	14.61	16.02	20.42	20.97	21.46	22.01	23.42
	6H	13.02	13.50	14.08	14.57	15.97	20.96	21.44	22.01	22.50	23.91
	8H	13.00	13.45	14.05	14.51	15.93	21.12	21.57	22.18	22.63	24.05
	12H	12.96	13.36	14.03	14.43	15.86	21.22	21.62	22.29	22.70	24.12
8H	4H	14.46	14.91	15.51	15.97	17.39	20.48	20.92	21.53	21.98	23.40
	6H	14.70	15.07	15.78	16.17	17.59	21.11	21.48	22.18	22.58	24.00
	8H	14.72	15.05	15.80	16.13	17.57	21.33	21.66	22.41	22.74	24.18
	12H	14.69	14.97	15.78	16.06	17.53	21.48	21.76	22.57	22.85	24.32
12H	4H	14.61	15.01	15.68	16.08	17.51	20.43	20.83	21.50	21.91	23.33
	6H	14.96	15.29	16.05	16.37	17.81	21.09	21.42	22.17	22.50	23.94
	8H	15.03	15.32	16.12	16.40	17.87	21.32	21.61	22.41	22.69	24.17