

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: P937177

Luminaire Tested: SQ4-FB-075U-075D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

**Test Information**

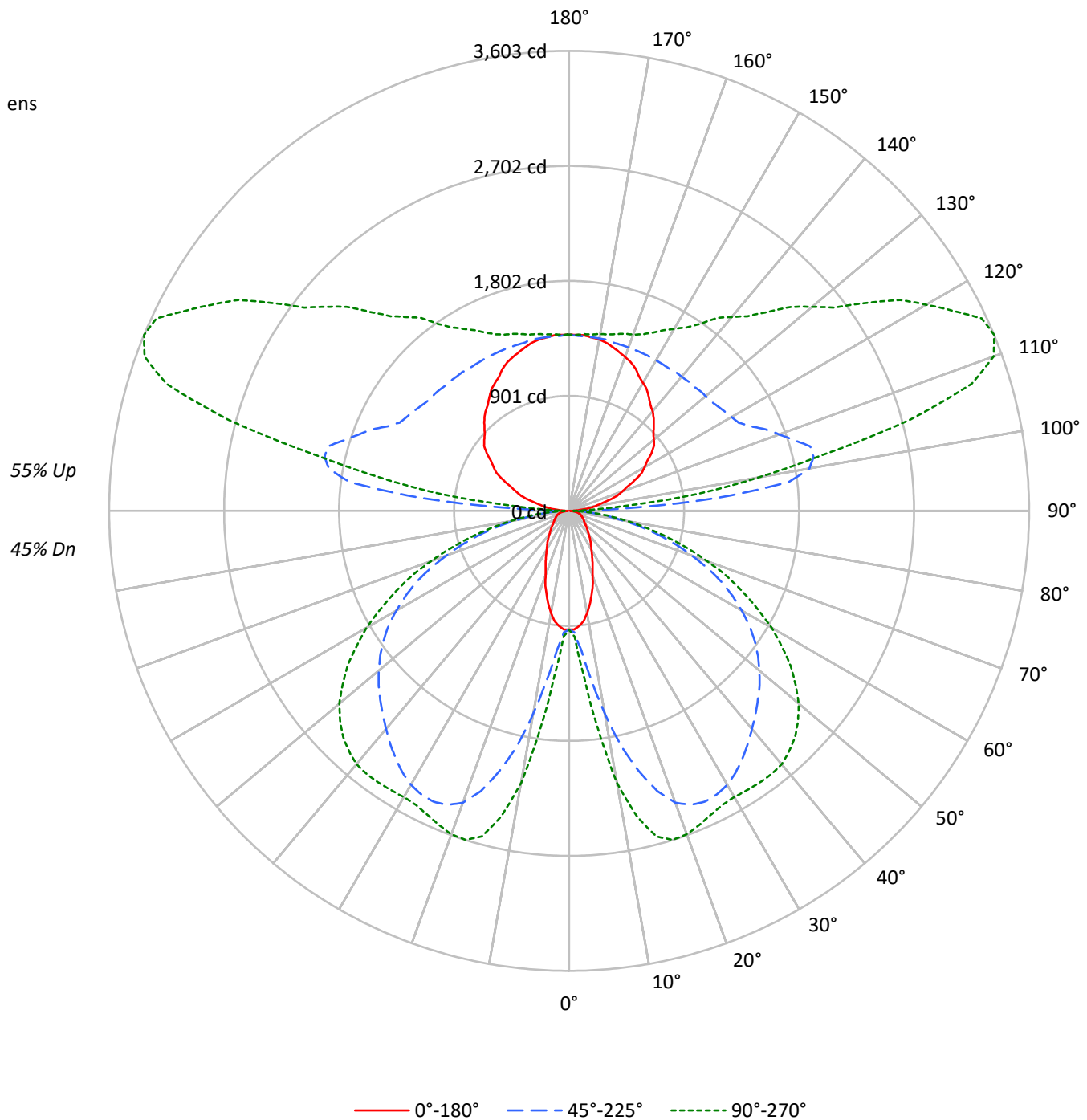
Test Method: LM-79-2019  
Report Number: P937177  
REPORT IS A COMBINATION OF REPORTS P933494 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-075D-B2750-1D-UNV-STD-W-12-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16141.1 lumens  
Efficiency: N/A  
Efficacy: 126.9 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 (Ain): 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°	2874	2874	2874
5°	2809	3323	3864
10°	2549	4845	6405
15°	2167	6332	7734
20°	1765	7339	7883
25°	1473	7682	7722
30°	1243	7733	7708
35°	1099	7606	7907
40°	958	7441	8113
45°	868	7321	8145
50°	797	7214	8010
55°	764	7056	7655
60°	784	6749	7094
65°	816	6281	6324
70°	872	5481	5343
75°	970	4473	4169
80°	1066	3106	2809
85°	969	1651	1438

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8145 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.2	0.7
10°-20°	532.8	3.3
20°-30°	931.9	5.8
30°-40°	1199.6	7.4
40°-50°	1339.9	8.3
50°-60°	1283.4	8.0
60°-70°	1017.1	6.3
70°-80°	598.0	3.7
80°-90°	171.4	1.1
90°-100°	672.7	4.2
100°-110°	1768.7	11.0
110°-120°	1833.9	11.4
120°-130°	1471.0	9.1
130°-140°	1154.2	7.2
140°-150°	885.9	5.5
150°-160°	638.0	4.0
160°-170°	390.4	2.4
170°-180°	131.9	0.8
0°-30°	1584.9	9.8
0°-40°	2784.5	17.3
0°-60°	5407.8	33.5
0°-90°	7194.4	44.6
90°-120°	4275.3	26.5
90°-150°	7786.5	48.2
90°-180°	8947.0	55.4
0°-180°	16141.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	905	971	1094	1237	1282	84
15°	678	1252	2110	2558	2638	189
25°	433	1419	2513	2624	2627	200
35°	293	1357	2367	2501	2600	183
45°	200	1082	2092	2396	2504	155
55°	143	687	1775	2062	2119	131
65°	114	364	1318	1482	1503	113
75°	84	224	723	795	798	88
85°	30	69	179	197	200	32
90°	9	26	70	35	35	10
95°	89	348	1159	597	407	99
105°	319	483	1955	2969	2770	338
115°	566	687	1566	3124	3566	559
125°	787	883	1425	2407	2840	699
135°	938	1033	1380	1943	2204	726
145°	1088	1158	1362	1658	1788	682
155°	1230	1264	1362	1496	1539	565
165°	1327	1345	1362	1416	1434	375
175°	1380	1380	1372	1389	1389	131
180°	1380	1380	1380	1380	1380	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3
2.5°	929.3	929.3	935.2	938.2	944.2	947.2	953.2	959.1	977.1	980.1	986.0
5°	905.4	917.3	956.2	971.1	1012.9	1069.7	1093.6	1132.6	1213.2	1237.1	1252.1
7.5°	869.5	896.4	992.0	1015.9	1120.5	1270.0	1332.7	1416.4	1544.9	1607.6	1658.4
10°	812.7	869.5	1039.8	1096.6	1267.0	1494.1	1610.6	1727.2	1921.4	2008.0	2040.9
12.5°	750.0	842.6	1090.6	1168.4	1413.4	1745.1	1885.5	2014.0	2235.1	2351.7	2369.6
15°	678.3	803.8	1138.5	1252.1	1568.8	1954.3	2109.6	2268.0	2474.2	2557.8	2578.7
17.5°	615.5	773.9	1183.3	1302.9	1688.3	2142.5	2300.9	2432.3	2599.7	2656.4	2671.4
20°	537.8	726.1	1213.2	1368.6	1813.8	2279.9	2432.3	2533.9	2647.5	2683.3	2689.3
22.5°	481.1	675.3	1231.2	1392.5	1897.5	2363.6	2492.1	2572.8	2650.5	2662.4	2665.4
25°	433.3	618.5	1228.2	1419.4	1969.2	2414.4	2513.0	2572.8	2617.6	2623.6	2623.6
27.5°	388.4	555.8	1216.2	1425.4	2023.0	2426.4	2504.0	2545.9	2566.8	2578.7	2578.7
30°	349.6	496.0	1186.3	1413.4	2046.9	2414.4	2477.2	2498.1	2519.0	2536.9	2545.9
32.5°	319.7	439.2	1141.5	1389.5	2049.9	2384.5	2429.3	2441.3	2471.2	2513.0	2527.9
35°	292.8	382.5	1090.6	1356.7	2031.9	2336.7	2366.6	2378.5	2438.3	2501.1	2522.0
37.5°	265.9	340.6	1024.9	1299.9	2005.0	2279.9	2300.9	2321.8	2414.4	2489.1	2513.0
40°	239.0	304.8	947.2	1237.1	1963.2	2211.2	2229.1	2262.0	2384.5	2471.2	2495.1
42.5°	218.1	274.9	863.5	1171.4	1909.4	2133.5	2160.4	2208.2	2348.7	2441.3	2468.2
45°	200.2	245.0	773.9	1081.7	1840.7	2052.9	2091.7	2157.4	2306.8	2396.5	2420.4
47.5°	182.3	224.1	681.3	989.0	1766.0	1972.2	2023.0	2097.7	2250.1	2336.7	2357.6
50°	167.3	203.2	588.6	890.4	1685.3	1885.5	1945.3	2023.0	2178.4	2259.0	2285.9
52.5°	155.4	185.3	502.0	791.8	1592.7	1795.9	1864.6	1945.3	2091.7	2169.4	2187.3
55°	143.4	170.3	427.3	687.2	1497.1	1700.3	1775.0	1852.7	1996.1	2061.8	2073.8
57.5°	137.4	158.4	364.5	588.6	1395.5	1592.7	1676.4	1748.1	1882.5	1933.3	1945.3
60°	128.5	149.4	316.7	505.0	1284.9	1491.1	1562.8	1634.5	1748.1	1789.9	1798.9
62.5°	119.5	143.4	280.9	424.3	1171.4	1371.6	1443.3	1509.0	1604.7	1634.5	1646.5
65°	113.5	137.4	254.0	364.5	1054.8	1246.1	1317.8	1374.6	1452.3	1482.1	1488.1
67.5°	107.6	131.5	233.1	313.7	938.2	1120.5	1174.4	1228.2	1287.9	1317.8	1320.8
70°	98.6	125.5	215.1	277.9	818.7	977.1	1021.9	1078.7	1126.5	1141.5	1150.5
72.5°	92.6	116.5	203.2	251.0	696.2	839.6	881.5	914.3	956.2	971.1	971.1
75°	83.7	104.6	191.2	224.1	570.7	687.2	723.1	756.0	788.8	794.8	785.8
77.5°	74.7	92.6	164.3	188.2	445.2	543.8	573.7	591.6	618.5	624.5	627.5
80°	62.7	80.7	128.5	146.4	322.7	400.4	421.3	436.2	460.2	460.2	466.1
82.5°	47.8	62.7	92.6	104.6	218.1	274.9	292.8	301.8	316.7	316.7	316.7
85°	29.9	38.8	59.8	68.7	131.5	167.3	179.3	182.3	194.2	197.2	197.2
87.5°	14.9	20.9	38.8	41.8	68.7	86.7	86.7	92.6	92.6	89.6	86.7
90°	9.3	16.6	24.0	25.9	40.7	60.6	70.4	62.5	46.9	35.2	35.2
92.5°	37.1	100.0	163.0	178.8	251.3	348.0	396.4	347.4	249.5	176.0	169.0
95°	88.9	204.2	319.5	348.3	618.4	978.7	1158.7	1034.0	784.5	597.4	576.2
97.5°	153.8	255.5	357.2	382.6	833.1	1433.6	1733.9	1655.1	1497.4	1379.2	1338.8
100°	203.8	296.0	388.2	411.2	911.1	1577.6	1910.8	1916.6	1928.2	1936.8	1888.7
102.5°	246.4	332.5	418.4	439.9	946.9	1622.9	1960.9	2061.3	2262.2	2412.9	2371.8
105°	318.6	391.5	464.3	482.6	973.5	1628.1	1955.3	2180.5	2630.9	2968.7	2946.6
107.5°	392.7	460.6	528.6	545.6	978.5	1555.7	1844.2	2158.3	2786.5	3257.6	3263.0
110°	442.7	504.1	565.4	580.8	971.0	1491.4	1751.6	2102.8	2805.0	3331.7	3354.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	491.8	550.3	608.8	623.4	971.4	1435.3	1667.3	2026.7	2745.5	3284.5	3319.9
115°	565.9	619.8	673.8	687.2	980.3	1371.0	1566.3	1912.5	2604.9	3124.3	3173.4
117.5°	639.1	688.1	737.0	749.3	998.5	1330.7	1496.8	1809.2	2434.1	2902.8	2957.3
120°	681.8	727.9	773.9	785.4	1013.3	1317.1	1469.0	1754.5	2325.5	2753.7	2806.6
122.5°	723.4	769.9	816.4	828.1	1034.6	1310.0	1447.7	1704.8	2219.0	2604.6	2656.8
125°	787.3	829.8	872.2	882.8	1063.3	1304.2	1424.6	1643.0	2079.7	2407.3	2455.4
127.5°	839.2	882.1	924.9	935.5	1092.1	1300.8	1405.2	1592.7	1967.7	2249.0	2289.5
130°	867.0	913.1	959.1	970.7	1113.0	1302.8	1397.7	1564.6	1898.5	2148.9	2186.3
132.5°	895.7	941.8	987.8	999.4	1130.0	1304.2	1391.2	1540.6	1839.5	2063.7	2097.3
135°	938.3	980.3	1022.3	1032.8	1148.6	1303.0	1380.2	1505.3	1755.5	1943.3	1972.2
137.5°	981.9	1023.4	1065.0	1075.4	1176.4	1310.9	1378.3	1484.0	1695.7	1854.4	1878.1
140°	1017.9	1056.2	1094.5	1104.1	1193.3	1312.3	1371.8	1463.2	1646.0	1783.0	1805.2
142.5°	1045.7	1081.2	1116.5	1125.4	1207.6	1317.0	1371.8	1452.1	1612.6	1733.0	1752.1
145°	1088.3	1119.2	1150.1	1157.8	1226.1	1317.0	1362.5	1428.2	1559.5	1658.0	1672.5
147.5°	1131.0	1161.0	1191.1	1198.6	1253.3	1326.1	1362.5	1414.2	1517.5	1595.0	1606.9
150°	1158.7	1185.9	1213.1	1219.9	1267.4	1330.9	1362.5	1406.2	1493.4	1558.8	1568.5
152.5°	1187.4	1208.0	1228.6	1233.7	1276.7	1333.9	1362.5	1399.8	1474.3	1530.2	1537.4
155°	1230.1	1245.3	1260.5	1264.3	1297.1	1340.7	1362.5	1392.2	1451.5	1495.9	1500.8
157.5°	1261.5	1276.4	1291.2	1294.9	1317.4	1347.5	1362.5	1385.5	1431.7	1466.2	1469.6
160°	1282.8	1294.4	1306.0	1308.8	1326.8	1350.6	1362.5	1382.2	1421.8	1451.5	1453.5
162.5°	1304.2	1312.8	1321.4	1323.6	1336.5	1353.9	1362.5	1379.2	1412.5	1437.5	1439.4
165°	1327.4	1335.1	1342.9	1344.9	1350.8	1358.6	1362.5	1374.5	1398.3	1416.2	1418.2
167.5°	1348.6	1352.3	1356.1	1357.0	1361.9	1368.5	1371.8	1379.6	1395.2	1406.9	1407.7
170°	1362.5	1366.2	1370.0	1370.9	1371.2	1371.6	1371.8	1379.6	1395.2	1406.9	1406.9
172.5°	1369.9	1370.7	1371.6	1371.8	1371.8	1371.8	1371.8	1378.0	1390.3	1399.6	1398.9
175°	1380.2	1380.2	1380.2	1380.2	1377.4	1373.7	1371.8	1375.7	1383.5	1389.4	1389.4
177.5°	1380.2	1380.2	1380.2	1380.2	1378.0	1375.1	1373.7	1376.8	1382.9	1387.5	1386.7
180°	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2	1380.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	929.3	929.3
2.5°	992.0	986.0
5°	1276.0	1282.0
7.5°	1718.2	1715.2
10°	2136.5	2163.4
12.5°	2441.3	2447.3
15°	2626.6	2638.5
17.5°	2698.3	2701.3
20°	2701.3	2695.3
22.5°	2668.4	2662.4
25°	2629.5	2626.6
27.5°	2593.7	2596.7
30°	2578.7	2587.7
32.5°	2578.7	2593.7
35°	2584.7	2599.7
37.5°	2581.7	2599.7
40°	2569.8	2590.7
42.5°	2536.9	2551.9
45°	2486.1	2504.0
47.5°	2420.4	2432.3
50°	2336.7	2348.7
52.5°	2232.1	2235.1
55°	2106.6	2118.6
57.5°	1972.2	1975.2
60°	1822.8	1831.7
62.5°	1664.4	1664.4
65°	1497.1	1503.1
67.5°	1323.8	1338.7
70°	1147.5	1150.5
72.5°	974.1	974.1
75°	794.8	797.8
77.5°	624.5	624.5
80°	463.1	466.1
82.5°	319.7	325.7
85°	200.2	200.2
87.5°	92.6	83.7
90°	35.2	35.2
92.5°	141.0	113.0
95°	491.4	406.7
97.5°	1177.5	1016.1
100°	1696.5	1504.3
102.5°	2207.0	2042.4
105°	2858.0	2769.5
107.5°	3284.4	3305.8
110°	3447.0	3539.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3461.5	3603.1
115°	3369.7	3566.1
117.5°	3175.0	3392.9
120°	3018.3	3229.8
122.5°	2865.5	3074.3
125°	2647.7	2839.9
127.5°	2451.8	2613.9
130°	2336.2	2486.1
132.5°	2231.4	2365.7
135°	2087.9	2203.6
137.5°	1972.7	2067.4
140°	1893.7	1982.1
142.5°	1828.3	1904.4
145°	1730.1	1787.6
147.5°	1654.7	1702.5
150°	1607.2	1646.0
152.5°	1566.7	1595.9
155°	1520.1	1539.4
157.5°	1483.2	1496.8
160°	1461.2	1469.0
162.5°	1446.8	1454.3
165°	1426.0	1433.8
167.5°	1411.1	1414.4
170°	1406.9	1406.9
172.5°	1396.0	1393.1
175°	1389.4	1389.4
177.5°	1383.4	1380.2
180°	1380.2	1380.2



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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	4.16	5.01	5.16	6.02	7.36	17.35	18.20	18.35	19.21	20.56
	3H	4.87	5.63	5.87	6.65	8.01	19.20	19.96	20.20	20.98	22.34
	4H	5.16	5.89	6.18	6.91	8.28	19.85	20.57	20.86	21.59	22.96
	6H	5.41	6.08	6.44	7.11	8.49	20.28	20.95	21.31	21.97	23.36
	8H	5.48	6.11	6.51	7.16	8.54	20.40	21.04	21.44	22.08	23.46
	12H	5.50	6.10	6.54	7.14	8.54	20.47	21.08	21.51	22.11	23.52
4H	2H	11.38	12.11	12.41	13.13	14.50	17.63	18.35	18.65	19.37	20.74
	3H	12.95	13.55	13.98	14.61	15.99	19.68	20.28	20.71	21.33	22.72
	4H	13.04	13.60	14.08	14.64	16.05	20.45	21.00	21.49	22.04	23.45
	6H	13.05	13.53	14.10	14.60	16.00	20.99	21.47	22.04	22.53	23.94
	8H	13.03	13.48	14.08	14.54	15.95	21.15	21.60	22.20	22.66	24.08
	12H	12.98	13.39	14.06	14.46	15.89	21.25	21.65	22.32	22.73	24.15
8H	4H	14.49	14.94	15.54	16.00	17.42	20.50	20.95	21.56	22.01	23.43
	6H	14.73	15.10	15.81	16.20	17.62	21.14	21.51	22.21	22.61	24.02
	8H	14.75	15.07	15.83	16.16	17.59	21.36	21.68	22.44	22.77	24.20
	12H	14.72	15.00	15.80	16.08	17.56	21.51	21.79	22.59	22.87	24.35
12H	4H	14.63	15.04	15.70	16.11	17.54	20.46	20.86	21.53	21.93	23.36
	6H	14.99	15.32	16.07	16.40	17.84	21.12	21.45	22.20	22.53	23.97
	8H	15.06	15.35	16.15	16.43	17.90	21.35	21.64	22.44	22.72	24.19