

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: P937217

Luminaire Tested: SQ4-FB-075U-100D-840-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

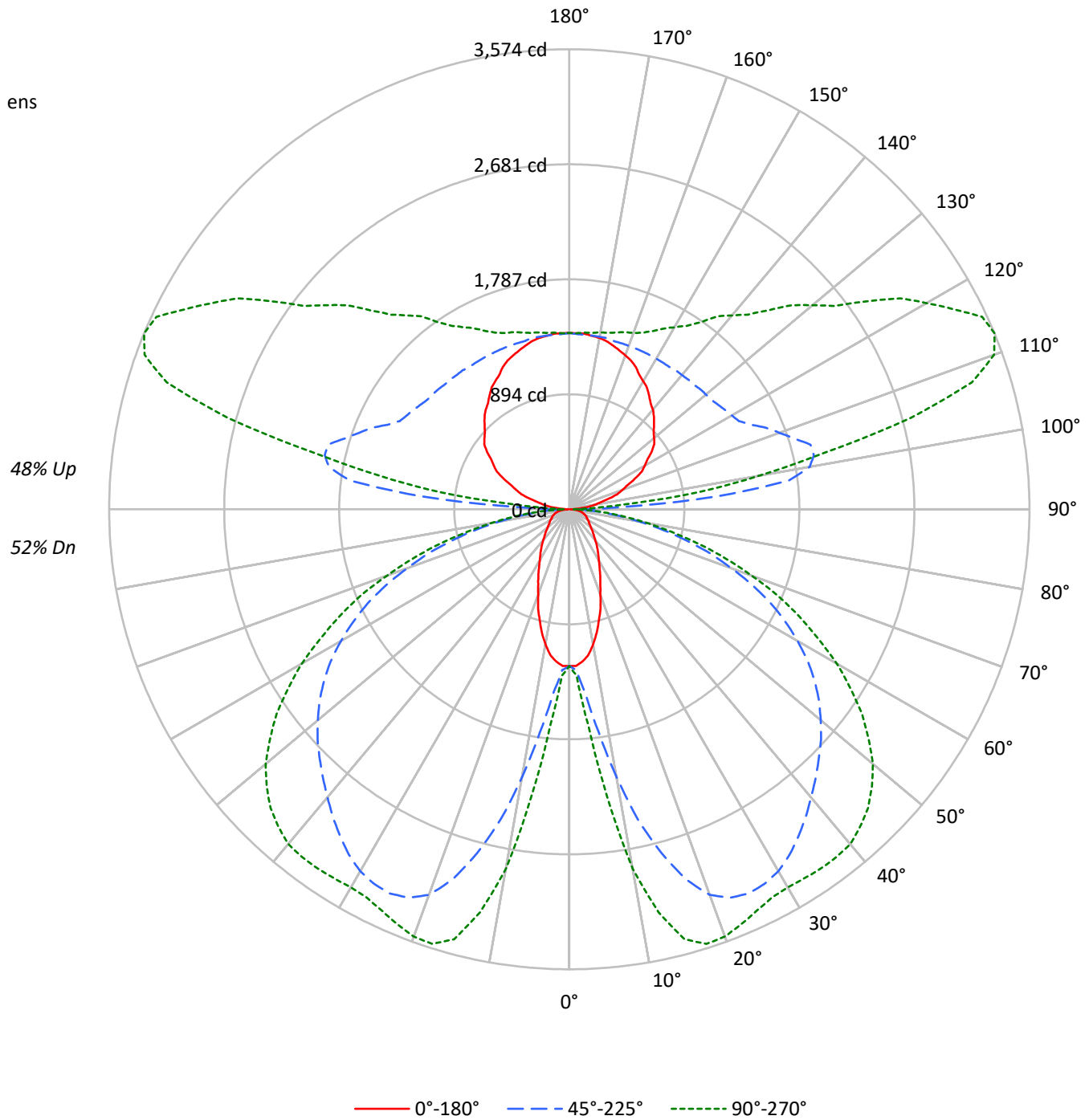
Test Method: LM-79-2019  
Report Number: P937217  
REPORT IS A COMBINATION OF REPORTS P933495 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-100D-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18301.7 lumens  
Efficiency: N/A  
Efficacy: 119.2 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): 153.6  
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				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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	47	47	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	39	39	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	32	32	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	27	27	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	23	23	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	20	20	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	18	18	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	16	16	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	14	14	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	12	12	12	10

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

	0°	45°	90°
0°	3767	3767	3767
5°	3682	4355	5063
10°	3341	6350	8394
15°	2840	8298	10136
20°	2313	9618	10330
25°	1930	10067	10120
30°	1628	10134	10101
35°	1440	9968	10362
40°	1256	9752	10632
45°	1138	9595	10674
50°	1045	9454	10497
55°	1002	9246	10032
60°	1027	8844	9297
65°	1070	8231	8288
70°	1142	7183	7002
75°	1271	5862	5464
80°	1398	4071	3682
85°	1267	2163	1885

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.5	0.9
10°-20°	698.2	3.8
20°-30°	1221.3	6.7
30°-40°	1572.2	8.6
40°-50°	1756.0	9.6
50°-60°	1681.9	9.2
60°-70°	1332.9	7.3
70°-80°	783.8	4.3
80°-90°	223.0	1.2
90°-100°	667.3	3.6
100°-110°	1754.5	9.6
110°-120°	1819.2	9.9
120°-130°	1459.2	8.0
130°-140°	1145.0	6.3
140°-150°	878.8	4.8
150°-160°	632.9	3.5
160°-170°	387.2	2.1
170°-180°	130.8	0.7
0°-30°	2077.0	11.3
0°-40°	3649.2	19.9
0°-60°	7087.1	38.7
0°-90°	9426.8	51.5
90°-120°	4241.0	23.2
90°-150°	7724.0	42.2
90°-180°	8875.0	48.5
0°-180°	18301.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1187	1273	1433	1621	1680	110
15°	889	1641	2765	3352	3458	247
25°	568	1860	3293	3438	3442	262
35°	384	1778	3102	3278	3407	240
45°	262	1418	2741	3141	3282	203
55°	188	901	2326	2702	2776	171
65°	149	478	1727	1942	1970	147
75°	110	294	948	1042	1046	115
85°	39	90	235	258	262	42
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°	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9	1217.9
2.5°	1217.9	1217.9	1225.7	1229.7	1237.5	1241.4	1249.2	1257.0	1280.5	1284.5	1292.3
5°	1186.6	1202.2	1253.2	1272.7	1327.6	1402.0	1433.3	1484.2	1589.9	1621.2	1640.8
7.5°	1139.6	1174.8	1300.1	1331.4	1468.5	1664.3	1746.6	1856.2	2024.6	2106.8	2173.4
10°	1065.2	1139.6	1362.7	1437.1	1660.4	1958.0	2110.8	2263.5	2518.0	2631.5	2674.6
12.5°	983.0	1104.3	1429.3	1531.2	1852.3	2286.9	2471.0	2639.4	2929.2	3082.0	3105.4
15°	888.9	1053.4	1492.0	1640.8	2055.9	2561.1	2764.7	2972.3	3242.5	3352.1	3379.6
17.5°	806.7	1014.3	1550.8	1707.4	2212.5	2807.8	3015.4	3187.7	3406.9	3481.3	3501.0
20°	704.8	951.6	1589.9	1793.5	2377.0	2987.9	3187.7	3320.8	3469.6	3516.6	3524.4
22.5°	630.4	885.1	1613.4	1824.8	2486.7	3097.6	3265.9	3371.7	3473.5	3489.2	3493.1
25°	567.8	810.7	1609.5	1860.1	2580.7	3164.2	3293.4	3371.7	3430.4	3438.2	3438.2
27.5°	509.1	728.4	1593.8	1867.9	2651.2	3179.8	3281.6	3336.5	3363.8	3379.6	3379.6
30°	458.1	650.1	1554.6	1852.3	2682.5	3164.2	3246.4	3273.8	3301.2	3324.7	3336.5
32.5°	419.0	575.6	1495.9	1821.0	2686.4	3125.0	3183.7	3199.4	3238.6	3293.4	3313.0
35°	383.7	501.2	1429.3	1777.9	2662.9	3062.3	3101.5	3117.1	3195.5	3277.7	3305.2
37.5°	348.6	446.5	1343.2	1703.5	2627.7	2987.9	3015.4	3042.7	3164.2	3262.1	3293.4
40°	313.3	399.4	1241.4	1621.2	2572.9	2897.9	2921.3	2964.4	3125.0	3238.6	3269.9
42.5°	285.8	360.3	1131.8	1535.1	2502.3	2796.0	2831.3	2894.0	3078.0	3199.4	3234.6
45°	262.4	321.1	1014.3	1417.6	2412.3	2690.3	2741.2	2827.4	3023.2	3140.7	3172.0
47.5°	238.9	293.7	892.9	1296.3	2314.4	2584.6	2651.2	2749.0	2948.8	3062.3	3089.8
50°	219.3	266.3	771.4	1167.0	2208.7	2471.0	2549.3	2651.2	2854.8	2960.5	2995.8
52.5°	203.6	242.8	657.9	1037.8	2087.2	2353.5	2443.6	2549.3	2741.2	2843.1	2866.6
55°	188.0	223.2	560.0	900.7	1962.0	2228.2	2326.1	2427.9	2615.9	2702.1	2717.7
57.5°	180.1	207.6	477.8	771.4	1828.8	2087.2	2196.9	2290.9	2467.1	2533.6	2549.3
60°	168.4	195.8	415.1	661.8	1683.8	1954.1	2048.1	2142.1	2290.9	2345.7	2357.5
62.5°	156.6	188.0	368.1	556.0	1535.1	1797.5	1891.4	1977.6	2103.0	2142.1	2157.7
65°	148.8	180.1	332.9	477.8	1382.4	1633.0	1726.9	1801.4	1903.2	1942.3	1950.2
67.5°	141.0	172.3	305.5	411.2	1229.7	1468.5	1539.0	1609.5	1687.8	1726.9	1730.9
70°	129.2	164.5	282.0	364.2	1073.0	1280.5	1339.3	1413.7	1476.4	1495.9	1507.7
72.5°	121.4	152.7	266.3	328.9	912.4	1100.4	1155.3	1198.3	1253.2	1272.7	1272.7
75°	109.7	137.0	250.7	293.7	747.9	900.7	947.7	990.8	1033.8	1041.6	1029.9
77.5°	97.9	121.4	215.4	246.7	583.5	712.7	751.9	775.4	810.7	818.5	822.4
80°	82.2	105.7	168.4	191.9	423.0	524.7	552.2	571.8	603.1	603.1	610.9
82.5°	62.6	82.2	121.4	137.0	285.8	360.3	383.7	395.5	415.1	415.1	415.1
85°	39.1	50.9	78.3	90.1	172.3	219.3	234.9	238.9	254.5	258.5	258.5
87.5°	19.6	27.4	50.9	54.8	90.1	113.5	113.5	121.4	121.4	117.5	113.5
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°	1217.9	1217.9
2.5°	1300.1	1292.3
5°	1672.2	1680.0
7.5°	2251.8	2247.8
10°	2800.0	2835.2
12.5°	3199.4	3207.2
15°	3442.2	3457.9
17.5°	3536.2	3540.1
20°	3540.1	3532.3
22.5°	3497.0	3489.2
25°	3446.1	3442.2
27.5°	3399.1	3403.1
30°	3379.6	3391.3
32.5°	3379.6	3399.1
35°	3387.4	3406.9
37.5°	3383.4	3406.9
40°	3367.8	3395.2
42.5°	3324.7	3344.3
45°	3258.1	3281.6
47.5°	3172.0	3187.7
50°	3062.3	3078.0
52.5°	2925.3	2929.2
55°	2760.8	2776.5
57.5°	2584.6	2588.5
60°	2388.8	2400.5
62.5°	2181.2	2181.2
65°	1962.0	1969.8
67.5°	1734.8	1754.4
70°	1503.7	1507.7
72.5°	1276.6	1276.6
75°	1041.6	1045.6
77.5°	818.5	818.5
80°	607.0	610.9
82.5°	419.0	426.8
85°	262.4	262.4
87.5°	121.4	109.7
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	5.76	6.67	6.69	7.63	8.88	18.95	19.86	19.88	20.82	22.07
	3H	6.47	7.29	7.41	8.26	9.52	20.80	21.62	21.74	22.59	23.86
	4H	6.77	7.54	7.73	8.52	9.79	21.45	22.23	22.41	23.20	24.48
	6H	7.02	7.74	7.99	8.72	10.01	21.88	22.60	22.86	23.58	24.87
	8H	7.09	7.77	8.07	8.77	10.06	22.01	22.70	22.99	23.69	24.98
	12H	7.11	7.76	8.09	8.75	10.06	22.08	22.73	23.07	23.72	25.04
4H	2H	12.99	13.76	13.95	14.74	16.01	19.23	20.01	20.19	20.98	22.26
	3H	14.56	15.21	15.53	16.21	17.50	21.28	21.94	22.26	22.94	24.23
	4H	14.65	15.25	15.64	16.25	17.56	22.06	22.65	23.04	23.65	24.96
	6H	14.67	15.18	15.67	16.20	17.52	22.60	23.12	23.60	24.14	25.45
	8H	14.65	15.13	15.65	16.14	17.47	22.77	23.25	23.77	24.26	25.59
	12H	14.61	15.04	15.62	16.07	17.40	22.87	23.30	23.89	24.33	25.67
8H	4H	16.11	16.59	17.11	17.60	18.93	22.12	22.60	23.12	23.62	24.94
	6H	16.35	16.75	17.38	17.81	19.13	22.76	23.16	23.78	24.21	25.54
	8H	16.37	16.72	17.40	17.76	19.11	22.98	23.33	24.01	24.37	25.72
	12H	16.34	16.65	17.38	17.69	19.07	23.13	23.44	24.17	24.48	25.86
12H	4H	16.25	16.69	17.27	17.72	19.05	22.08	22.51	23.10	23.54	24.87
	6H	16.61	16.97	17.65	18.01	19.35	22.74	23.09	23.77	24.13	25.48
	8H	16.68	17.00	17.72	18.03	19.42	22.98	23.29	24.01	24.32	25.71