

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: P937213

Luminaire Tested: SQ4-FB-075U-100D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

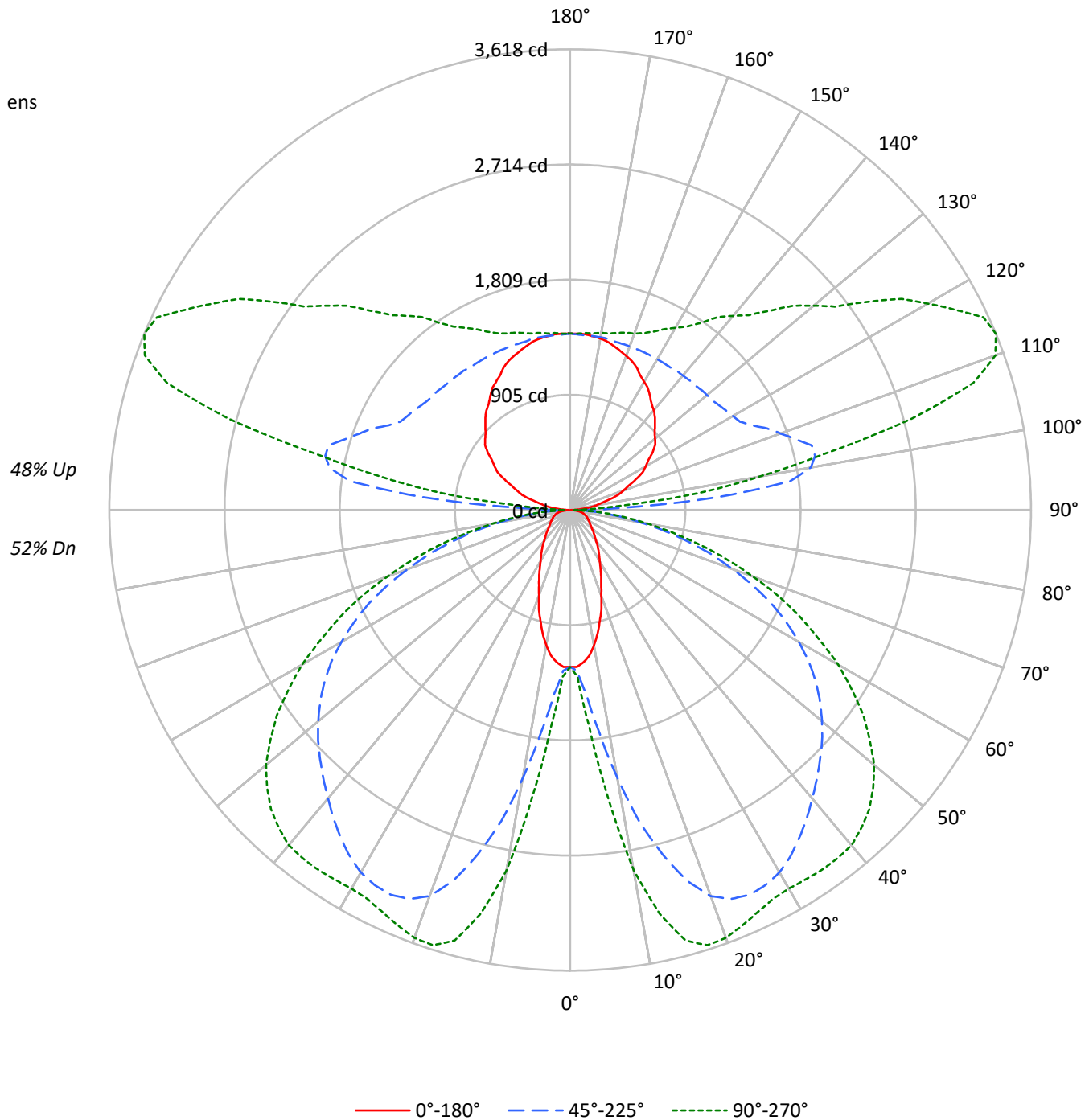
Test Method: LM-79-2019  
Report Number: P937213  
REPORT IS A COMBINATION OF REPORTS P933495 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-100D-835-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18524.0 lumens  
Efficiency: N/A  
Efficacy: 120.6 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): 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	
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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	10

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

	0°	45°	90°
0°	3813	3813	3813
5°	3726	4408	5125
10°	3381	6427	8496
15°	2875	8399	10259
20°	2341	9735	10456
25°	1954	10190	10243
30°	1648	10257	10224
35°	1458	10089	10488
40°	1271	9870	10761
45°	1152	9711	10804
50°	1058	9569	10625
55°	1014	9359	10154
60°	1039	8952	9410
65°	1083	8331	8388
70°	1156	7271	7087
75°	1287	5933	5530
80°	1415	4120	3726
85°	1283	2190	1908

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10804 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.5	0.9
10°-20°	706.7	3.8
20°-30°	1236.1	6.7
30°-40°	1591.3	8.6
40°-50°	1777.4	9.6
50°-60°	1702.3	9.2
60°-70°	1349.1	7.3
70°-80°	793.3	4.3
80°-90°	225.7	1.2
90°-100°	675.4	3.6
100°-110°	1775.8	9.6
110°-120°	1841.3	9.9
120°-130°	1476.9	8.0
130°-140°	1158.9	6.3
140°-150°	889.5	4.8
150°-160°	640.6	3.5
160°-170°	391.9	2.1
170°-180°	132.4	0.7
0°-30°	2102.3	11.3
0°-40°	3693.5	19.9
0°-60°	7173.2	38.7
0°-90°	9541.3	51.5
90°-120°	4292.5	23.2
90°-150°	7817.8	42.2
90°-180°	8983.0	48.5
0°-180°	18524.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1233	1233	1233	1233	1233	
5°	1201	1288	1451	1641	1700	111
15°	900	1661	2798	3393	3500	250
25°	575	1883	3333	3480	3484	265
35°	388	1800	3139	3318	3448	243
45°	266	1435	2774	3179	3322	205
55°	190	912	2354	2735	2810	173
65°	151	484	1748	1966	1994	149
75°	111	297	959	1054	1058	116
85°	40	91	238	262	266	42
90°	9	26	71	35	35	10
95°	89	350	1163	600	408	99
105°	320	484	1963	2981	2781	339
115°	568	690	1573	3137	3580	561
125°	790	886	1430	2417	2851	702
135°	942	1037	1386	1951	2212	729
145°	1093	1162	1368	1665	1795	685
155°	1235	1269	1368	1502	1546	567
165°	1333	1350	1368	1422	1440	376
175°	1386	1386	1377	1395	1395	132
180°	1386	1386	1386	1386	1386	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7	1232.7
2.5°	1232.7	1232.7	1240.6	1244.6	1252.5	1256.5	1264.4	1272.3	1296.1	1300.1	1308.0
5°	1201.0	1216.8	1268.4	1288.2	1343.7	1419.0	1450.7	1502.2	1609.2	1640.9	1660.7
7.5°	1153.4	1189.1	1315.9	1347.6	1486.3	1684.5	1767.8	1878.7	2049.2	2132.4	2199.8
10°	1078.1	1153.4	1379.3	1454.6	1680.6	1981.8	2136.4	2291.0	2548.6	2663.5	2707.1
12.5°	994.9	1117.7	1446.7	1549.8	1874.8	2314.7	2501.0	2671.5	2964.8	3119.4	3143.1
15°	899.7	1066.2	1510.1	1660.7	2080.9	2592.2	2798.3	3008.4	3281.9	3392.8	3420.6
17.5°	816.5	1026.6	1569.6	1728.1	2239.4	2841.9	3052.0	3226.4	3448.3	3523.6	3543.5
20°	713.4	963.2	1609.2	1815.3	2405.9	3024.2	3226.4	3361.1	3511.7	3559.3	3567.2
22.5°	638.1	895.8	1633.0	1847.0	2516.9	3135.2	3305.6	3412.7	3515.7	3531.6	3535.5
25°	574.7	820.5	1629.0	1882.7	2612.0	3202.6	3333.4	3412.7	3472.1	3480.0	3480.0
27.5°	515.3	737.2	1613.2	1890.6	2683.4	3218.4	3321.5	3377.0	3404.7	3420.6	3420.6
30°	463.7	658.0	1573.5	1874.8	2715.1	3202.6	3285.8	3313.6	3341.3	3365.1	3377.0
32.5°	424.1	582.6	1514.1	1843.1	2719.0	3163.0	3222.4	3238.3	3277.9	3333.4	3353.2
35°	388.4	507.3	1446.7	1799.5	2695.2	3099.5	3139.2	3155.0	3234.3	3317.5	3345.3
37.5°	352.8	451.9	1359.5	1724.2	2659.6	3024.2	3052.0	3079.7	3202.6	3301.7	3333.4
40°	317.1	404.3	1256.5	1640.9	2604.1	2933.1	2956.8	3000.4	3163.0	3277.9	3309.6
42.5°	289.3	364.7	1145.5	1553.7	2532.7	2830.0	2865.7	2929.1	3115.4	3238.3	3273.9
45°	265.6	325.0	1026.6	1434.8	2441.6	2723.0	2774.5	2861.7	3059.9	3178.8	3210.5
47.5°	241.8	297.3	903.7	1312.0	2342.5	2616.0	2683.4	2782.4	2984.6	3099.5	3127.3
50°	222.0	269.5	780.8	1181.2	2235.5	2501.0	2580.3	2683.4	2889.5	2996.5	3032.2
52.5°	206.1	245.7	665.9	1050.4	2112.6	2382.1	2473.3	2580.3	2774.5	2877.6	2901.4
55°	190.3	225.9	566.8	911.6	1985.8	2255.3	2354.4	2457.4	2647.7	2734.9	2750.7
57.5°	182.3	210.1	483.6	780.8	1851.0	2112.6	2223.6	2318.7	2497.1	2564.4	2580.3
60°	170.4	198.2	420.1	669.8	1704.3	1977.8	2073.0	2168.1	2318.7	2374.2	2386.1
62.5°	158.5	190.3	372.6	562.8	1553.7	1819.3	1914.4	2001.6	2128.5	2168.1	2183.9
65°	150.6	182.3	336.9	483.6	1399.2	1652.8	1747.9	1823.3	1926.3	1965.9	1973.9
67.5°	142.7	174.4	309.2	416.2	1244.6	1486.3	1557.7	1629.0	1708.3	1747.9	1751.9
70°	130.8	166.5	285.4	368.6	1086.0	1296.1	1355.6	1430.9	1494.3	1514.1	1526.0
72.5°	122.9	154.6	269.5	332.9	923.5	1113.8	1169.3	1212.9	1268.4	1288.2	1288.2
75°	111.0	138.7	253.7	297.3	757.0	911.6	959.2	1002.8	1046.4	1054.3	1042.4
77.5°	99.1	122.9	218.0	249.7	590.6	721.4	761.0	784.8	820.5	828.4	832.4
80°	83.2	107.0	170.4	194.2	428.1	531.1	558.9	578.7	610.4	610.4	618.3
82.5°	63.4	83.2	122.9	138.7	289.3	364.7	388.4	400.3	420.1	420.1	420.1
85°	39.6	51.5	79.3	91.2	174.4	222.0	237.8	241.8	257.6	261.6	261.6
87.5°	19.8	27.7	51.5	55.5	91.2	114.9	114.9	122.9	122.9	118.9	114.9
90°	9.3	16.7	24.1	26.0	40.9	60.8	70.7	62.8	47.1	35.3	35.3
92.5°	37.2	100.4	163.7	179.5	252.3	349.4	398.0	348.8	250.5	176.7	169.7
95°	89.3	205.0	320.8	349.7	620.9	982.6	1163.4	1038.2	787.7	599.8	578.5
97.5°	154.4	256.5	358.6	384.1	836.4	1439.4	1740.9	1661.7	1503.4	1384.7	1344.2
100°	204.6	297.2	389.8	412.9	914.8	1583.9	1918.5	1924.3	1935.9	1944.6	1896.3
102.5°	247.4	333.8	420.1	441.7	950.7	1629.4	1968.8	2069.6	2271.3	2422.6	2381.3
105°	319.9	393.1	466.2	484.5	977.4	1634.6	1963.2	2189.3	2641.5	2980.6	2958.4
107.5°	394.3	462.5	530.7	547.8	982.4	1561.9	1851.6	2167.0	2797.7	3270.7	3276.1
110°	444.5	506.1	567.7	583.1	974.9	1497.4	1758.6	2111.2	2816.3	3345.1	3368.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	493.8	552.5	611.2	625.9	975.3	1441.1	1674.0	2034.8	2756.5	3297.7	3333.2
115°	568.2	622.3	676.5	690.0	984.2	1376.5	1572.6	1920.2	2615.4	3136.8	3186.1
117.5°	641.7	690.9	740.0	752.3	1002.5	1336.0	1502.8	1816.5	2443.9	2914.5	2969.2
120°	684.5	730.8	777.0	788.6	1017.4	1322.4	1474.9	1761.5	2334.8	2764.8	2817.9
122.5°	726.3	773.0	819.7	831.4	1038.8	1315.3	1453.5	1711.6	2227.9	2615.1	2667.5
125°	790.5	833.1	875.7	886.3	1067.6	1309.4	1430.3	1649.6	2088.1	2417.0	2465.3
127.5°	842.6	885.6	928.6	939.3	1096.5	1306.0	1410.8	1599.1	1975.6	2258.0	2298.7
130°	870.5	916.8	963.0	974.6	1117.5	1308.0	1403.3	1570.9	1906.1	2157.5	2195.1
132.5°	899.3	945.6	991.8	1003.4	1134.5	1309.4	1396.8	1546.8	1846.9	2072.0	2105.7
135°	942.1	984.2	1026.4	1036.9	1153.2	1308.2	1385.7	1511.3	1762.6	1951.1	1980.1
137.5°	985.8	1027.5	1069.3	1079.7	1181.1	1316.2	1383.8	1490.0	1702.5	1861.8	1885.6
140°	1022.0	1060.4	1098.9	1108.5	1198.1	1317.6	1377.3	1469.1	1652.6	1790.2	1812.4
142.5°	1049.9	1085.5	1121.0	1129.9	1212.4	1322.3	1377.3	1457.9	1619.1	1740.0	1759.1
145°	1092.7	1123.7	1154.7	1162.5	1231.0	1322.3	1368.0	1433.9	1565.8	1664.7	1679.2
147.5°	1135.5	1165.7	1195.9	1203.4	1258.3	1331.4	1368.0	1419.9	1523.6	1601.4	1613.4
150°	1163.4	1190.7	1218.0	1224.8	1272.5	1336.2	1368.0	1411.8	1499.4	1565.1	1574.8
152.5°	1192.2	1212.9	1233.5	1238.7	1281.8	1339.3	1368.0	1405.4	1480.2	1536.3	1543.6
155°	1235.0	1250.3	1265.6	1269.4	1302.3	1346.1	1368.0	1397.8	1457.3	1501.9	1506.8
157.5°	1266.6	1281.5	1296.4	1300.1	1322.7	1352.9	1368.0	1391.1	1437.4	1472.1	1475.5
160°	1288.0	1299.6	1311.2	1314.1	1332.1	1356.0	1368.0	1387.8	1427.5	1457.3	1459.3
162.5°	1309.4	1318.1	1326.7	1328.9	1341.9	1359.3	1368.0	1384.7	1418.2	1443.3	1445.2
165°	1332.7	1340.5	1348.3	1350.3	1356.2	1364.1	1368.0	1380.0	1403.9	1421.9	1423.9
167.5°	1354.0	1357.7	1361.5	1362.4	1367.4	1374.0	1377.3	1385.1	1400.8	1412.6	1413.4
170°	1368.0	1371.7	1375.5	1376.4	1376.7	1377.1	1377.3	1385.1	1400.8	1412.6	1412.6
172.5°	1375.4	1376.2	1377.1	1377.3	1377.3	1377.3	1377.3	1383.5	1395.9	1405.2	1404.5
175°	1385.7	1385.7	1385.7	1385.7	1382.9	1379.2	1377.3	1381.2	1389.1	1395.0	1395.0
177.5°	1385.7	1385.7	1385.7	1385.7	1383.5	1380.6	1379.2	1382.3	1388.5	1393.1	1392.3
180°	1385.7	1385.7	1385.7	1385.7	1385.7	1385.7	1385.7	1385.7	1385.7	1385.7	1385.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1232.7	1232.7
2.5°	1315.9	1308.0
5°	1692.5	1700.4
7.5°	2279.1	2275.1
10°	2834.0	2869.6
12.5°	3238.3	3246.2
15°	3484.0	3499.9
17.5°	3579.1	3583.1
20°	3583.1	3575.2
22.5°	3539.5	3531.6
25°	3488.0	3484.0
27.5°	3440.4	3444.4
30°	3420.6	3432.5
32.5°	3420.6	3440.4
35°	3428.5	3448.3
37.5°	3424.5	3448.3
40°	3408.7	3436.4
42.5°	3365.1	3384.9
45°	3297.7	3321.5
47.5°	3210.5	3226.4
50°	3099.5	3115.4
52.5°	2960.8	2964.8
55°	2794.3	2810.2
57.5°	2616.0	2619.9
60°	2417.8	2429.7
62.5°	2207.7	2207.7
65°	1985.8	1993.7
67.5°	1755.9	1775.7
70°	1522.0	1526.0
72.5°	1292.1	1292.1
75°	1054.3	1058.3
77.5°	828.4	828.4
80°	614.4	618.3
82.5°	424.1	432.0
85°	265.6	265.6
87.5°	122.9	111.0
90°	35.3	35.3
92.5°	141.6	113.5
95°	493.4	408.3
97.5°	1182.2	1020.2
100°	1703.3	1510.3
102.5°	2215.9	2050.6
105°	2869.5	2780.6
107.5°	3297.6	3319.1
110°	3460.8	3553.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3475.4	3617.6
115°	3383.2	3580.4
117.5°	3187.8	3406.5
120°	3030.4	3242.8
122.5°	2877.0	3086.6
125°	2658.3	2851.3
127.5°	2461.6	2624.4
130°	2345.6	2496.1
132.5°	2240.4	2375.2
135°	2096.3	2212.4
137.5°	1980.6	2075.7
140°	1901.3	1990.1
142.5°	1835.6	1912.0
145°	1737.0	1794.8
147.5°	1661.3	1709.3
150°	1613.7	1652.6
152.5°	1573.0	1602.3
155°	1526.2	1545.6
157.5°	1489.2	1502.8
160°	1467.1	1474.9
162.5°	1452.6	1460.1
165°	1431.7	1439.6
167.5°	1416.8	1420.1
170°	1412.6	1412.6
172.5°	1401.6	1398.7
175°	1395.0	1395.0
177.5°	1389.0	1385.7
180°	1385.7	1385.7



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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	5.80	6.71	6.73	7.67	8.92	18.99	19.90	19.92	20.86	22.11
	3H	6.51	7.33	7.45	8.30	9.57	20.84	21.66	21.78	22.63	23.90
	4H	6.81	7.59	7.77	8.56	9.84	21.49	22.27	22.45	23.24	24.52
	6H	7.06	7.78	8.03	8.76	10.05	21.93	22.65	22.90	23.62	24.91
	8H	7.13	7.82	8.11	8.81	10.10	22.05	22.74	23.03	23.73	25.02
	12H	7.15	7.80	8.13	8.79	10.11	22.12	22.78	23.11	23.77	25.08
4H	2H	13.03	13.81	13.99	14.78	16.06	19.27	20.05	20.24	21.02	22.30
	3H	14.60	15.25	15.58	16.25	17.55	21.33	21.98	22.30	22.98	24.27
	4H	14.70	15.29	15.68	16.29	17.60	22.10	22.70	23.08	23.69	25.01
	6H	14.71	15.23	15.71	16.24	17.56	22.64	23.16	23.64	24.18	25.49
	8H	14.69	15.17	15.69	16.18	17.51	22.81	23.29	23.81	24.31	25.63
	12H	14.65	15.08	15.67	16.11	17.45	22.91	23.35	23.93	24.37	25.71
8H	4H	16.15	16.63	17.15	17.64	18.97	22.16	22.65	23.16	23.66	24.99
	6H	16.39	16.79	17.42	17.85	19.17	22.80	23.20	23.82	24.25	25.58
	8H	16.41	16.77	17.45	17.80	19.15	23.02	23.38	24.06	24.41	25.76
	12H	16.38	16.69	17.42	17.73	19.12	23.17	23.48	24.21	24.52	25.91
12H	4H	16.30	16.73	17.32	17.76	19.09	22.12	22.55	23.14	23.58	24.92
	6H	16.65	17.01	17.69	18.05	19.39	22.78	23.14	23.82	24.18	25.52
	8H	16.73	17.04	17.76	18.07	19.46	23.02	23.33	24.06	24.36	25.75