

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: P937601

Luminaire Tested: SQ4-FB-100U-075D-B40-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

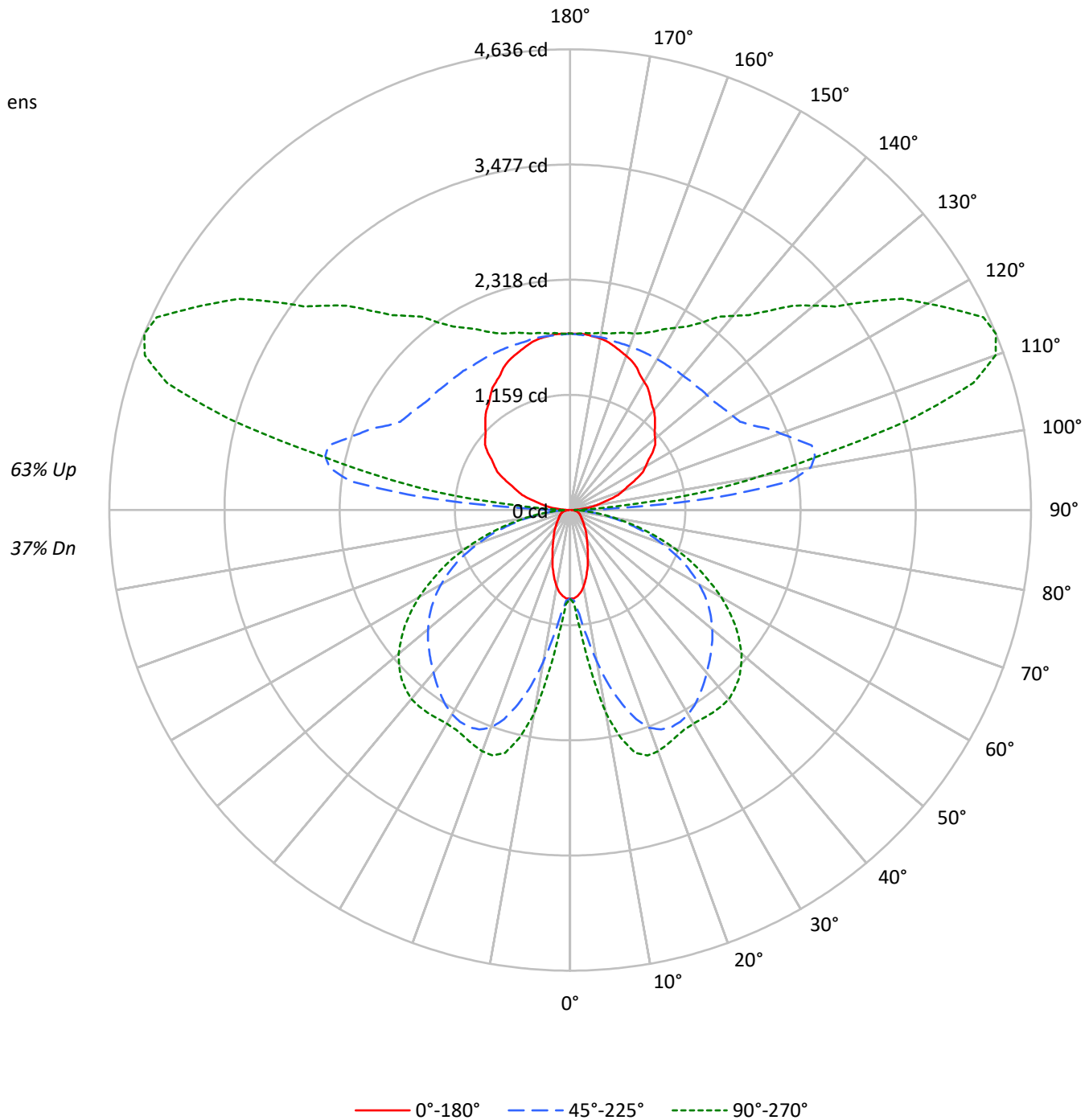
Test Method: LM-79-2019  
Report Number: P937601  
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-B40-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18410.5 lumens  
Efficiency: N/A  
Efficacy: 124.7 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: Semi-Indirect  
  
Input Watts (W): 147.6  
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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

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

	0°	45°	90°
0°	2756	2756	2756
5°	2693	3186	3705
10°	2444	4646	6142
15°	2078	6071	7416
20°	1692	7037	7558
25°	1412	7366	7404
30°	1191	7414	7390
35°	1054	7293	7581
40°	919	7135	7779
45°	833	7020	7810
50°	764	6917	7680
55°	733	6765	7340
60°	751	6471	6802
65°	783	6023	6064
70°	835	5255	5123
75°	930	4289	3998
80°	1024	2978	2693
85°	927	1583	1379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7810 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.3	0.6
10°-20°	510.8	2.8
20°-30°	893.5	4.9
30°-40°	1150.3	6.2
40°-50°	1284.8	7.0
50°-60°	1230.5	6.7
60°-70°	975.2	5.3
70°-80°	573.4	3.1
80°-90°	166.1	0.9
90°-100°	865.5	4.7
100°-110°	2275.5	12.4
110°-120°	2359.4	12.8
120°-130°	1892.6	10.3
130°-140°	1485.0	8.1
140°-150°	1139.8	6.2
150°-160°	820.8	4.5
160°-170°	502.2	2.7
170°-180°	169.7	0.9
0°-30°	1519.6	8.3
0°-40°	2669.9	14.5
0°-60°	5185.2	28.2
0°-90°	6899.9	37.5
90°-120°	5500.5	29.9
90°-150°	10017.8	54.4
90°-180°	11511.0	62.5
0°-180°	18410.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	868	931	1049	1186	1229	80
15°	650	1200	2023	2452	2530	181
25°	415	1361	2410	2516	2518	191
35°	281	1301	2269	2398	2493	175
45°	192	1037	2006	2298	2401	148
55°	138	659	1702	1977	2031	125
65°	109	350	1264	1421	1441	108
75°	80	215	693	762	765	84
85°	29	66	172	189	192	30
90°	12	33	90	45	45	12
95°	114	448	1491	769	523	127
105°	410	621	2516	3819	3563	435
115°	728	884	2015	4020	4588	719
125°	1013	1136	1833	3097	3654	899
135°	1207	1329	1776	2500	2835	934
145°	1400	1490	1753	2133	2300	877
155°	1582	1627	1753	1924	1981	727
165°	1708	1730	1753	1822	1845	482
175°	1776	1776	1765	1788	1788	169
180°	1776	1776	1776	1776	1776	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0
2.5°	891.0	891.0	896.7	899.6	905.3	908.2	913.9	919.7	936.9	939.7	945.4
5°	868.1	879.6	916.8	931.1	971.2	1025.7	1048.6	1085.9	1163.3	1186.2	1200.5
7.5°	833.7	859.5	951.2	974.1	1074.4	1217.7	1277.9	1358.1	1481.3	1541.5	1590.2
10°	779.3	833.7	997.0	1051.5	1214.9	1432.6	1544.3	1656.1	1842.3	1925.4	1956.9
12.5°	719.1	807.9	1045.7	1120.3	1355.2	1673.3	1807.9	1931.1	2143.1	2254.9	2272.0
15°	650.4	770.7	1091.7	1200.5	1504.2	1873.8	2022.8	2174.6	2372.3	2452.5	2472.6
17.5°	590.2	742.0	1134.6	1249.2	1618.8	2054.3	2206.1	2332.2	2492.6	2547.1	2561.4
20°	515.7	696.2	1163.3	1312.3	1739.2	2186.1	2332.2	2429.6	2538.5	2572.9	2578.6
22.5°	461.3	647.5	1180.5	1335.2	1819.4	2266.3	2389.5	2466.9	2541.4	2552.8	2555.7
25°	415.4	593.1	1177.6	1361.0	1888.1	2315.0	2409.6	2466.9	2509.8	2515.6	2515.6
27.5°	372.4	532.9	1166.2	1366.7	1939.7	2326.5	2401.0	2441.1	2461.1	2472.6	2472.6
30°	335.2	475.6	1137.5	1355.2	1962.6	2315.0	2375.2	2395.2	2415.3	2432.5	2441.1
32.5°	306.6	421.2	1094.5	1332.3	1965.5	2286.4	2329.3	2340.8	2369.5	2409.6	2423.9
35°	280.8	366.7	1045.7	1300.8	1948.3	2240.5	2269.2	2280.6	2337.9	2398.1	2418.2
37.5°	255.0	326.6	982.7	1246.4	1922.5	2186.1	2206.1	2226.2	2315.0	2386.6	2409.6
40°	229.2	292.2	908.2	1186.2	1882.4	2120.2	2137.4	2168.9	2286.4	2369.5	2392.4
42.5°	209.1	263.6	828.0	1123.2	1830.8	2045.7	2071.5	2117.3	2252.0	2340.8	2366.6
45°	192.0	234.9	742.0	1037.1	1764.9	1968.4	2005.6	2068.6	2211.9	2297.8	2320.7
47.5°	174.8	214.9	653.2	948.3	1693.3	1891.0	1939.7	2011.3	2157.4	2240.5	2260.6
50°	160.4	194.8	564.4	853.8	1616.0	1807.9	1865.2	1939.7	2088.7	2166.0	2191.8
52.5°	149.0	177.6	481.3	759.2	1527.1	1722.0	1787.9	1865.2	2005.6	2080.1	2097.3
55°	137.5	163.3	409.7	658.9	1435.5	1630.3	1701.9	1776.4	1913.9	1976.9	1988.4
57.5°	131.8	151.8	349.5	564.4	1338.1	1527.1	1607.4	1676.1	1805.0	1853.8	1865.2
60°	123.2	143.2	303.7	484.2	1232.0	1429.7	1498.5	1567.3	1676.1	1716.2	1724.8
62.5°	114.6	137.5	269.3	406.8	1123.2	1315.1	1383.9	1446.9	1538.6	1567.3	1578.7
65°	108.9	131.8	243.5	349.5	1011.3	1194.8	1263.6	1318.0	1392.5	1421.1	1426.9
67.5°	103.1	126.1	223.5	300.8	899.6	1074.4	1126.0	1177.6	1234.9	1263.6	1266.4
70°	94.5	120.3	206.3	266.4	785.0	936.9	979.8	1034.3	1080.1	1094.5	1103.1
72.5°	88.8	111.7	194.8	240.7	667.5	805.1	845.2	876.7	916.8	931.1	931.1
75°	80.2	100.3	183.4	214.9	547.2	658.9	693.3	724.8	756.4	762.1	753.5
77.5°	71.6	88.8	157.6	180.5	426.9	521.4	550.1	567.3	593.1	598.8	601.6
80°	60.2	77.4	123.2	140.4	309.4	383.9	404.0	418.3	441.2	441.2	446.9
82.5°	45.8	60.2	88.8	100.3	209.1	263.6	280.8	289.4	303.7	303.7	303.7
85°	28.6	37.2	57.3	65.9	126.1	160.4	171.9	174.8	186.2	189.1	189.1
87.5°	14.3	20.1	37.2	40.1	65.9	83.1	83.1	88.8	88.8	86.0	83.1
90°	11.9	21.5	30.9	33.3	52.4	77.8	90.5	80.5	60.4	45.3	45.3
92.5°	47.7	128.6	209.7	230.0	323.4	447.8	510.1	447.0	321.0	226.4	217.5
95°	114.4	262.7	411.0	448.1	795.6	1259.1	1490.8	1330.3	1009.3	768.6	741.3
97.5°	197.8	328.6	459.5	492.2	1071.7	1844.4	2230.8	2129.4	1926.5	1774.4	1722.5
100°	262.1	380.8	499.4	529.1	1172.2	2029.7	2458.5	2465.9	2480.7	2491.8	2430.0
102.5°	317.0	427.6	538.3	566.0	1218.3	2088.0	2522.8	2652.0	2910.5	3104.3	3051.3
105°	410.0	503.7	597.4	620.8	1252.5	2094.6	2515.7	2805.4	3384.8	3819.3	3790.9
107.5°	505.3	592.7	680.1	701.9	1258.8	2001.3	2372.6	2776.8	3585.0	4191.1	4198.0
110°	569.7	648.5	727.4	747.2	1249.2	1918.7	2253.4	2705.2	3608.8	4286.4	4316.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	632.8	708.0	783.2	802.0	1249.7	1846.6	2145.0	2607.4	3532.2	4225.7	4271.2
115°	728.1	797.5	866.9	884.2	1261.2	1763.8	2015.1	2460.6	3351.4	4019.5	4082.6
117.5°	822.3	885.3	948.3	964.1	1284.7	1712.0	1925.8	2327.7	3131.7	3734.7	3804.7
120°	877.1	936.4	995.8	1010.6	1303.8	1694.6	1890.0	2257.3	2991.9	3542.9	3611.0
122.5°	930.7	990.6	1050.4	1065.4	1331.2	1685.5	1862.6	2193.3	2854.9	3351.0	3418.1
125°	1013.0	1067.5	1122.0	1135.7	1368.0	1677.9	1832.8	2113.8	2675.7	3097.2	3158.9
127.5°	1079.6	1134.7	1189.8	1203.6	1405.0	1673.5	1807.8	2049.0	2531.5	2893.4	2945.5
130°	1115.4	1174.7	1234.1	1248.9	1432.0	1676.2	1798.3	2013.0	2442.6	2764.7	2813.0
132.5°	1152.4	1211.7	1271.0	1285.8	1453.8	1677.8	1789.9	1982.1	2366.7	2655.1	2698.3
135°	1207.2	1261.2	1315.2	1328.7	1477.7	1676.3	1775.6	1936.6	2258.6	2500.1	2537.3
137.5°	1263.2	1316.7	1370.1	1383.5	1513.4	1686.6	1773.2	1909.3	2181.6	2385.8	2416.2
140°	1309.7	1359.0	1408.1	1420.5	1535.3	1688.3	1764.8	1882.4	2117.6	2294.0	2322.5
142.5°	1345.4	1391.0	1436.5	1447.9	1553.5	1694.4	1764.8	1868.2	2074.7	2229.6	2254.1
145°	1400.2	1439.9	1479.7	1489.6	1577.4	1694.5	1753.0	1837.4	2006.4	2133.1	2151.6
147.5°	1455.0	1493.7	1532.4	1542.0	1612.3	1706.1	1753.0	1819.5	1952.4	2052.1	2067.5
150°	1490.8	1525.7	1560.7	1569.4	1630.7	1712.2	1753.0	1809.2	1921.4	2005.6	2018.0
152.5°	1527.7	1554.2	1580.7	1587.3	1642.5	1716.1	1753.0	1800.9	1896.7	1968.6	1978.0
155°	1582.5	1602.1	1621.8	1626.7	1668.8	1724.9	1753.0	1791.1	1867.3	1924.5	1930.7
157.5°	1623.0	1642.1	1661.2	1666.0	1695.0	1733.7	1753.0	1782.6	1841.9	1886.4	1890.8
160°	1650.4	1665.3	1680.1	1683.9	1706.9	1737.6	1753.0	1778.4	1829.2	1867.3	1869.8
162.5°	1677.8	1688.9	1700.1	1702.9	1719.6	1741.8	1753.0	1774.4	1817.3	1849.5	1851.8
165°	1707.6	1717.7	1727.8	1730.3	1737.8	1747.9	1753.0	1768.4	1799.0	1822.0	1824.5
167.5°	1735.0	1739.8	1744.6	1745.8	1752.1	1760.6	1764.8	1775.0	1795.1	1810.2	1811.3
170°	1753.0	1757.8	1762.5	1763.7	1764.1	1764.6	1764.8	1775.0	1795.1	1810.2	1810.2
172.5°	1762.5	1763.5	1764.6	1764.8	1764.8	1764.8	1764.8	1772.8	1788.7	1800.7	1799.7
175°	1775.6	1775.6	1775.6	1775.6	1772.0	1767.2	1764.8	1769.9	1779.9	1787.5	1787.5
177.5°	1775.6	1775.6	1775.6	1775.6	1772.9	1769.1	1767.2	1771.2	1779.2	1785.1	1784.0
180°	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	891.0	891.0
2.5°	951.2	945.4
5°	1223.5	1229.2
7.5°	1647.5	1644.6
10°	2048.6	2074.4
12.5°	2340.8	2346.5
15°	2518.4	2529.9
17.5°	2587.2	2590.1
20°	2590.1	2584.3
22.5°	2558.5	2552.8
25°	2521.3	2518.4
27.5°	2486.9	2489.8
30°	2472.6	2481.2
32.5°	2472.6	2486.9
35°	2478.3	2492.6
37.5°	2475.5	2492.6
40°	2464.0	2484.1
42.5°	2432.5	2446.8
45°	2383.8	2401.0
47.5°	2320.7	2332.2
50°	2240.5	2252.0
52.5°	2140.3	2143.1
55°	2019.9	2031.4
57.5°	1891.0	1893.9
60°	1747.7	1756.3
62.5°	1595.9	1595.9
65°	1435.5	1441.2
67.5°	1269.3	1283.6
70°	1100.3	1103.1
72.5°	934.0	934.0
75°	762.1	765.0
77.5°	598.8	598.8
80°	444.1	446.9
82.5°	306.6	312.3
85°	192.0	192.0
87.5°	88.8	80.2
90°	45.3	45.3
92.5°	181.4	145.4
95°	632.2	523.1
97.5°	1514.9	1307.3
100°	2182.7	1935.3
102.5°	2839.5	2627.7
105°	3676.9	3563.1
107.5°	4225.6	4253.1
110°	4434.7	4553.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4453.5	4635.7
115°	4335.3	4587.9
117.5°	4084.9	4365.1
120°	3883.1	4155.4
122.5°	3686.6	3955.1
125°	3406.3	3653.6
127.5°	3154.3	3362.9
130°	3005.7	3198.5
132.5°	2870.9	3043.6
135°	2686.1	2835.0
137.5°	2538.0	2659.9
140°	2436.4	2550.2
142.5°	2352.1	2450.1
145°	2225.8	2299.9
147.5°	2128.9	2190.3
150°	2067.9	2117.6
152.5°	2015.6	2053.2
155°	1955.6	1980.6
157.5°	1908.3	1925.8
160°	1879.9	1890.0
162.5°	1861.4	1870.9
165°	1834.7	1844.7
167.5°	1815.5	1819.7
170°	1810.2	1810.2
172.5°	1796.0	1792.2
175°	1787.5	1787.5
177.5°	1779.8	1775.6
180°	1775.6	1775.6



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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	3.26	4.05	4.31	5.11	6.55	16.46	17.24	17.51	18.30	19.74
	3H	3.96	4.67	5.02	5.74	7.19	18.30	19.00	19.36	20.07	21.52
	4H	4.26	4.93	5.33	6.00	7.46	18.94	19.61	20.01	20.68	22.14
	6H	4.50	5.12	5.59	6.20	7.67	19.37	19.99	20.45	21.06	22.54
	8H	4.57	5.16	5.66	6.25	7.72	19.49	20.08	20.58	21.17	22.64
	12H	4.58	5.14	5.68	6.23	7.72	19.56	20.12	20.65	21.20	22.70
4H	2H	10.48	11.15	11.56	12.22	13.68	16.72	17.39	17.80	18.46	19.92
	3H	12.04	12.60	13.13	13.70	15.17	18.77	19.33	19.85	20.42	21.90
	4H	12.13	12.64	13.22	13.73	15.23	19.53	20.05	20.62	21.13	22.63
	6H	12.14	12.58	13.24	13.69	15.18	20.07	20.51	21.17	21.62	23.11
	8H	12.11	12.52	13.21	13.63	15.13	20.23	20.65	21.33	21.75	23.26
	12H	12.06	12.44	13.18	13.55	15.06	20.33	20.70	21.44	21.82	23.33
8H	4H	13.57	13.98	14.67	15.09	16.59	19.59	20.00	20.69	21.10	22.61
	6H	13.81	14.15	14.93	15.30	16.80	20.22	20.56	21.34	21.70	23.20
	8H	13.83	14.13	14.96	15.25	16.78	20.44	20.74	21.57	21.86	23.39
	12H	13.79	14.06	14.93	15.18	16.74	20.58	20.85	21.72	21.97	23.53
12H	4H	13.71	14.09	14.83	15.20	16.71	19.53	19.91	20.65	21.02	22.54
	6H	14.07	14.37	15.20	15.50	17.02	20.20	20.50	21.33	21.62	23.15
	8H	14.13	14.40	15.27	15.52	17.08	20.43	20.69	21.56	21.81	23.37