

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: P938293

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938293
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

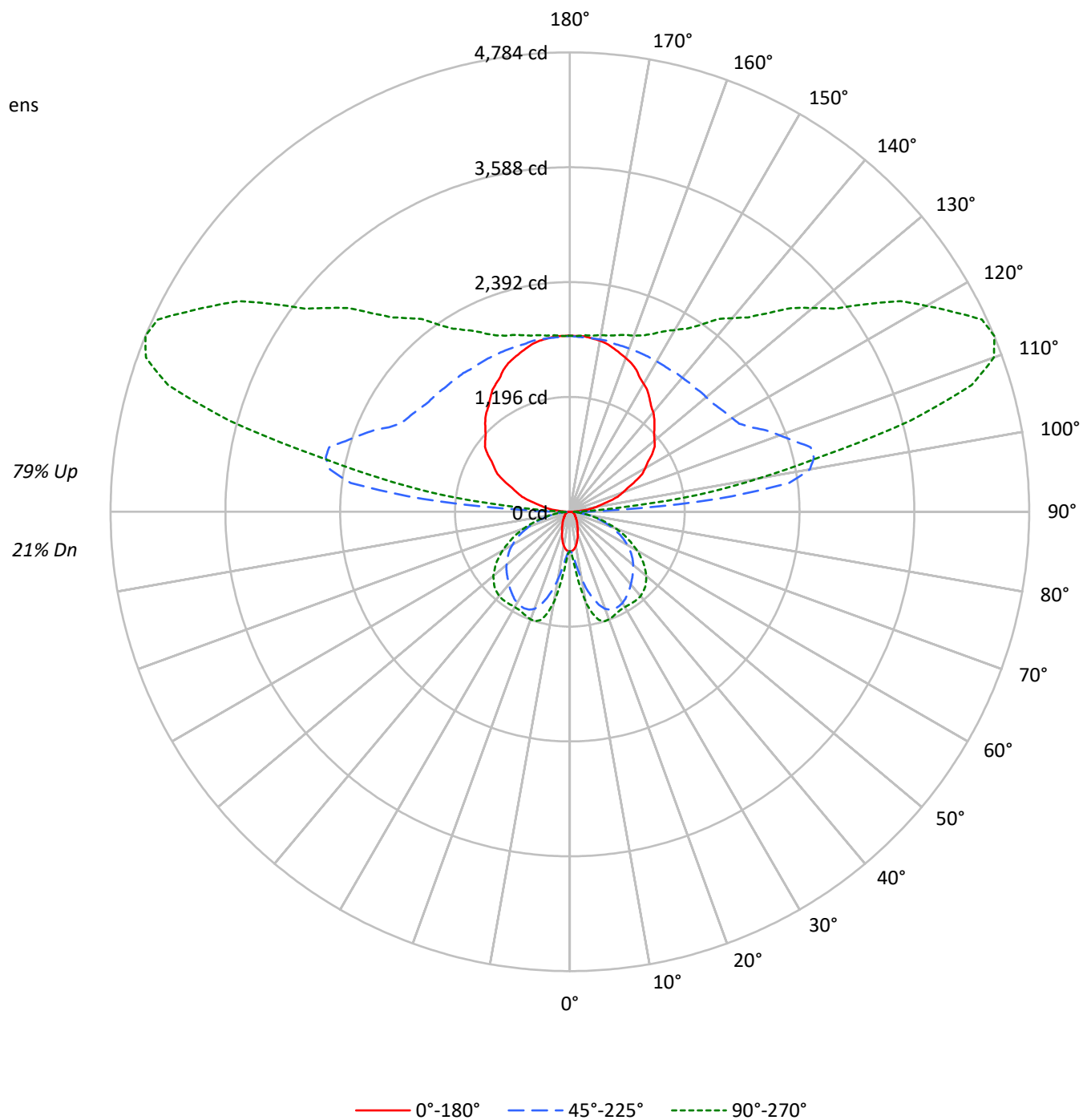
Lumens per Lamp: N/A
Luminaire Lumens: 15069.1 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 111.2
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

TEST NUMBER: P938293

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-3000K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21		
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17		
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14		
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12		
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10		
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8		
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7		
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6		
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5		
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5		
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1908	1908	1908
5°	1864	2205	2565
10°	1691	3215	4252
15°	1437	4200	5135
20°	1170	4867	5233
25°	976	5094	5127
30°	823	5126	5117
35°	728	5041	5249
40°	634	4930	5386
45°	574	4849	5407
50°	526	4776	5318
55°	505	4669	5082
60°	517	4465	4710
65°	538	4152	4199
70°	573	3622	3547
75°	635	2953	2768
80°	694	2048	1865
85°	615	1087	954

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5407 cd/sqm

TEST NUMBER: P938293

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.2	0.4
10°-20°	235.8	1.6
20°-30°	412.5	2.7
30°-40°	530.9	3.5
40°-50°	593.1	3.9
50°-60°	568.0	3.8
60°-70°	450.2	3.0
70°-80°	264.7	1.8
80°-90°	80.5	0.5
90°-100°	893.3	5.9
100°-110°	2348.6	15.6
110°-120°	2435.2	16.2
120°-130°	1953.3	13.0
130°-140°	1532.7	10.2
140°-150°	1176.4	7.8
150°-160°	847.2	5.6
160°-170°	518.4	3.4
170°-180°	175.1	1.2
0°-30°	701.5	4.7
0°-40°	1232.4	8.2
0°-60°	2393.5	15.9
0°-90°	3188.9	21.2
90°-120°	5677.1	37.7
90°-150°	10339.5	68.6
90°-180°	11880.0	78.8
0°-180°	15069.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	411	411	411	411	411	
5°	401	430	484	548	567	37
15°	300	554	934	1132	1168	84
25°	192	628	1112	1161	1162	88
35°	130	600	1047	1107	1151	81
45°	89	479	926	1061	1108	69
55°	64	304	786	912	938	58
65°	50	161	583	656	665	50
75°	37	99	320	352	353	39
85°	13	30	79	87	89	14
90°	12	34	94	47	47	11
95°	118	462	1539	793	540	131
105°	423	641	2596	3942	3678	449
115°	752	913	2080	4149	4735	742
125°	1046	1172	1892	3197	3771	928
135°	1246	1371	1833	2580	2926	964
145°	1445	1538	1809	2202	2374	905
155°	1633	1679	1809	1986	2044	751
165°	1762	1786	1809	1881	1904	497
175°	1833	1833	1822	1845	1845	174
180°	1833	1833	1833	1833	1833	

TEST NUMBER: P938293

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-3000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	411.3	411.3	411.3	411.3	411.3	411.3	411.3	411.3	411.3	411.3	411.3
2.5°	411.3	411.3	413.9	415.3	417.9	419.2	421.9	424.6	432.5	433.7	436.4
5°	400.7	406.0	423.2	429.8	448.3	473.5	484.0	501.2	537.0	547.5	554.1
7.5°	384.8	396.8	439.1	449.6	496.0	562.0	589.8	626.9	683.7	711.5	734.0
10°	359.7	384.8	460.3	485.4	560.7	661.2	712.9	764.4	850.3	888.7	903.3
12.5°	332.0	372.9	482.7	517.1	625.5	772.3	834.6	891.3	989.3	1040.8	1048.7
15°	300.2	355.7	503.8	554.1	694.3	864.9	933.7	1003.7	1095.1	1132.0	1141.3
17.5°	272.4	342.5	523.8	576.6	747.2	948.2	1018.3	1076.5	1150.6	1175.7	1182.3
20°	238.0	321.3	537.0	605.7	802.8	1009.1	1076.5	1121.5	1171.8	1187.6	1190.3
22.5°	212.9	298.9	544.9	616.2	839.8	1046.1	1102.9	1138.7	1173.0	1178.4	1179.7
25°	191.8	273.7	543.6	628.2	871.5	1068.6	1112.2	1138.7	1158.6	1161.2	1161.2
27.5°	172.0	246.0	538.3	630.8	895.4	1073.9	1108.3	1126.8	1136.1	1141.3	1141.3
30°	154.7	219.6	525.0	625.5	905.9	1068.6	1096.3	1105.6	1114.9	1122.9	1126.8
32.5°	141.5	194.4	505.2	615.0	907.2	1055.3	1075.2	1080.5	1093.7	1112.2	1118.8
35°	129.6	169.3	482.7	600.4	899.3	1034.2	1047.4	1052.8	1079.2	1107.0	1116.2
37.5°	117.7	150.8	453.7	575.3	887.4	1009.1	1018.3	1027.6	1068.6	1101.7	1112.2
40°	105.8	134.9	419.2	547.5	868.9	978.7	986.6	1001.2	1055.3	1093.7	1104.3
42.5°	96.5	121.7	382.2	518.4	845.1	944.3	956.2	977.3	1039.5	1080.5	1092.4
45°	88.6	108.5	342.5	478.7	814.6	908.6	925.8	954.8	1021.0	1060.6	1071.2
47.5°	80.7	99.2	301.5	437.8	781.6	872.9	895.4	928.4	995.9	1034.2	1043.5
50°	74.0	89.9	260.5	394.1	745.9	834.6	861.0	895.4	964.1	999.8	1011.7
52.5°	68.7	82.0	222.1	350.4	704.9	794.8	825.3	861.0	925.8	960.2	968.1
55°	63.5	75.4	189.1	304.2	662.6	752.5	785.5	820.0	883.5	912.5	917.9
57.5°	60.8	70.1	161.3	260.5	617.6	704.9	742.0	773.7	833.2	855.7	861.0
60°	56.9	66.2	140.2	223.5	568.7	659.9	691.7	723.4	773.7	792.2	796.2
62.5°	52.9	63.5	124.3	187.8	518.4	607.1	638.7	667.9	710.2	723.4	728.8
65°	50.3	60.8	112.4	161.3	466.9	551.5	583.2	608.4	642.8	656.0	658.6
67.5°	47.6	58.2	103.1	138.8	415.3	496.0	519.7	543.6	570.0	583.2	584.5
70°	43.7	55.5	95.2	123.0	362.4	432.5	452.3	477.4	498.6	505.2	509.2
72.5°	41.0	51.6	89.9	111.1	308.1	371.6	390.2	404.7	423.2	429.8	429.8
75°	37.1	46.2	84.6	99.2	252.6	304.2	320.1	334.5	349.1	351.8	347.9
77.5°	33.0	41.0	72.8	83.3	197.1	240.7	253.9	261.9	273.7	276.4	277.8
80°	27.8	35.7	56.9	64.8	142.9	177.2	186.5	193.1	203.7	203.7	206.3
82.5°	21.2	27.8	41.0	46.2	96.5	121.7	129.6	133.6	140.2	140.2	140.2
85°	13.2	17.2	26.4	30.4	58.2	74.0	79.4	80.7	86.0	87.3	87.3
87.5°	6.6	9.3	17.2	18.5	30.4	38.4	38.4	41.0	41.0	39.6	38.4
90°	12.3	22.2	31.9	34.4	54.1	80.4	93.5	83.1	62.3	46.7	46.7
92.5°	49.2	132.8	216.5	237.4	333.8	462.2	526.4	461.3	331.3	233.7	224.4
95°	118.1	271.2	424.2	462.4	821.1	1299.4	1538.7	1373.0	1041.8	793.3	765.1
97.5°	204.2	339.2	474.3	508.0	1106.2	1903.8	2302.5	2197.8	1988.5	1831.4	1777.9
100°	270.6	393.0	515.5	546.1	1209.9	2094.9	2537.4	2545.1	2560.3	2571.8	2508.0
102.5°	327.2	441.4	555.6	584.2	1257.4	2155.0	2603.8	2737.2	3003.9	3204.0	3149.4
105°	423.1	519.8	616.6	640.8	1292.6	2161.8	2596.4	2895.5	3493.5	3942.0	3912.6
107.5°	521.5	611.7	701.8	724.4	1299.3	2065.7	2448.8	2865.9	3700.2	4325.8	4332.9
110°	588.0	669.4	750.8	771.2	1289.4	1980.4	2325.9	2792.2	3724.7	4424.2	4454.7

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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	653.1	730.7	808.3	827.7	1289.8	1905.8	2213.9	2691.1	3645.5	4361.4	4408.4
115°	751.5	823.1	894.7	912.6	1301.7	1820.5	2079.9	2539.5	3459.0	4148.6	4213.8
117.5°	848.7	913.7	978.8	995.1	1325.9	1767.0	1987.6	2402.5	3232.3	3854.7	3926.9
120°	905.2	966.5	1027.7	1043.0	1345.6	1749.0	1950.7	2329.8	3088.1	3656.7	3726.9
122.5°	960.6	1022.4	1084.1	1099.6	1373.9	1739.6	1922.4	2263.8	2946.6	3458.6	3527.9
125°	1045.5	1101.8	1158.1	1172.2	1412.0	1731.7	1891.6	2181.6	2761.6	3196.6	3260.4
127.5°	1114.4	1171.2	1228.1	1242.3	1450.1	1727.3	1865.8	2114.8	2612.8	2986.3	3040.1
130°	1151.3	1212.5	1273.7	1289.0	1478.0	1729.9	1855.9	2077.6	2521.0	2853.5	2903.3
132.5°	1189.4	1250.6	1311.9	1327.2	1500.6	1731.8	1847.4	2045.8	2442.6	2740.3	2784.9
135°	1245.9	1301.7	1357.5	1371.4	1525.1	1730.1	1832.6	1998.8	2331.2	2580.5	2618.8
137.5°	1303.8	1359.0	1414.1	1427.9	1562.0	1740.8	1830.2	1970.7	2251.6	2462.3	2493.8
140°	1351.7	1402.6	1453.4	1466.1	1584.6	1742.6	1821.5	1942.9	2185.7	2367.7	2397.1
142.5°	1388.6	1435.6	1482.6	1494.4	1603.4	1748.9	1821.5	1928.1	2141.3	2301.2	2326.5
145°	1445.2	1486.2	1527.2	1537.5	1628.1	1748.9	1809.2	1896.4	2070.8	2201.6	2220.8
147.5°	1501.8	1541.7	1581.6	1591.6	1664.2	1760.9	1809.2	1877.8	2015.0	2117.9	2133.8
150°	1538.7	1574.7	1610.8	1619.8	1682.9	1767.1	1809.2	1867.2	1983.0	2070.0	2082.8
152.5°	1576.8	1604.1	1631.5	1638.3	1695.3	1771.3	1809.2	1858.7	1957.6	2031.9	2041.5
155°	1633.4	1653.6	1673.8	1678.9	1722.3	1780.2	1809.2	1848.6	1927.3	1986.4	1992.8
157.5°	1675.2	1694.9	1714.6	1719.5	1749.4	1789.3	1809.2	1839.9	1901.1	1947.1	1951.6
160°	1703.5	1718.8	1734.1	1737.9	1761.7	1793.3	1809.2	1835.4	1888.0	1927.3	1929.9
162.5°	1731.8	1743.2	1754.8	1757.6	1774.8	1797.8	1809.2	1831.4	1875.7	1908.9	1911.4
165°	1762.5	1772.8	1783.3	1785.8	1793.6	1804.0	1809.2	1825.1	1856.8	1880.6	1883.2
167.5°	1790.8	1795.7	1800.6	1801.9	1808.4	1817.2	1821.5	1831.9	1852.7	1868.3	1869.4
170°	1809.2	1814.1	1819.1	1820.4	1820.7	1821.2	1821.5	1831.9	1852.7	1868.3	1868.3
172.5°	1819.1	1820.2	1821.2	1821.5	1821.5	1821.5	1821.5	1829.7	1846.1	1858.4	1857.4
175°	1832.6	1832.6	1832.6	1832.6	1828.9	1824.0	1821.5	1826.8	1837.1	1844.9	1844.9
177.5°	1832.6	1832.6	1832.6	1832.6	1829.7	1825.9	1824.0	1828.1	1836.3	1842.4	1841.4
180°	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	411.3	411.3
2.5°	439.1	436.4
5°	564.7	567.3
7.5°	760.4	759.1
10°	945.6	957.5
12.5°	1080.5	1083.1
15°	1162.5	1167.8
17.5°	1194.2	1195.5
20°	1195.5	1192.9
22.5°	1181.0	1178.4
25°	1163.8	1162.5
27.5°	1147.9	1149.3
30°	1141.3	1145.3
32.5°	1141.3	1147.9
35°	1144.0	1150.6
37.5°	1142.7	1150.6
40°	1137.4	1146.6
42.5°	1122.9	1129.5
45°	1100.4	1108.3
47.5°	1071.2	1076.5
50°	1034.2	1039.5
52.5°	987.9	989.3
55°	932.4	937.7
57.5°	872.9	874.2
60°	806.7	810.7
62.5°	736.6	736.6
65°	662.6	665.3
67.5°	585.9	592.5
70°	507.9	509.2
72.5°	431.2	431.2
75°	351.8	353.1
77.5°	276.4	276.4
80°	205.0	206.3
82.5°	141.5	144.2
85°	88.6	88.6
87.5°	41.0	37.1
90°	46.7	46.7
92.5°	187.2	150.1
95°	652.5	539.9
97.5°	1563.5	1349.2
100°	2252.7	1997.4
102.5°	2930.7	2712.1
105°	3795.1	3677.6
107.5°	4361.3	4389.7
110°	4577.2	4699.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4596.4	4784.5
115°	4474.6	4735.3
117.5°	4216.1	4505.3
120°	4007.9	4288.8
122.5°	3805.1	4082.2
125°	3515.8	3771.1
127.5°	3255.6	3470.9
130°	3102.3	3301.2
132.5°	2963.0	3141.3
135°	2772.4	2926.1
137.5°	2619.5	2745.2
140°	2514.6	2632.1
142.5°	2427.6	2528.8
145°	2297.3	2373.8
147.5°	2197.2	2260.6
150°	2134.3	2185.7
152.5°	2080.4	2119.2
155°	2018.5	2044.2
157.5°	1969.5	1987.6
160°	1940.3	1950.7
162.5°	1921.1	1931.0
165°	1893.6	1904.0
167.5°	1873.8	1878.1
170°	1868.3	1868.3
172.5°	1853.7	1849.8
175°	1844.9	1844.9
177.5°	1836.9	1832.6
180°	1832.6	1832.6

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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	0.00	0.34	0.84	1.49	3.12	12.85	13.52	14.02	14.67	16.30
	3H	0.36	0.96	1.54	2.12	3.76	14.68	15.27	15.85	16.44	18.08
	4H	0.65	1.22	1.83	2.38	4.03	15.31	15.88	16.50	17.04	18.69
	6H	0.89	1.41	2.08	2.58	4.24	15.73	16.26	16.92	17.42	19.08
	8H	0.95	1.45	2.15	2.63	4.28	15.85	16.34	17.04	17.52	19.17
	12H	0.96	1.44	2.16	2.61	4.28	15.91	16.38	17.11	17.55	19.23
4H	2H	6.87	7.43	8.06	8.59	10.24	13.10	13.67	14.29	14.83	16.48
	3H	8.41	8.89	9.61	10.07	11.73	15.13	15.60	16.32	16.79	18.45
	4H	8.50	8.94	9.70	10.11	11.79	15.89	16.33	17.08	17.50	19.18
	6H	8.50	8.87	9.70	10.07	11.74	16.42	16.79	17.62	17.99	19.65
	8H	8.47	8.82	9.67	10.01	11.69	16.57	16.92	17.77	18.11	19.79
	12H	8.42	8.73	9.63	9.93	11.62	16.66	16.97	17.87	18.17	19.86
8H	4H	9.93	10.28	11.13	11.47	13.15	15.93	16.28	17.13	17.47	19.15
	6H	10.16	10.45	11.38	11.68	13.36	16.55	16.84	17.77	18.07	19.75
	8H	10.18	10.43	11.40	11.63	13.34	16.77	17.02	17.99	18.23	19.93
	12H	10.13	10.35	11.36	11.56	13.29	16.90	17.12	18.13	18.33	20.06
12H	4H	10.06	10.38	11.28	11.58	13.27	15.87	16.19	17.09	17.39	19.08
	6H	10.42	10.67	11.64	11.87	13.58	16.53	16.78	17.75	17.99	19.69
	8H	10.48	10.70	11.70	11.90	13.63	16.75	16.97	17.98	18.18	19.91