

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: P938295

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938295
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-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

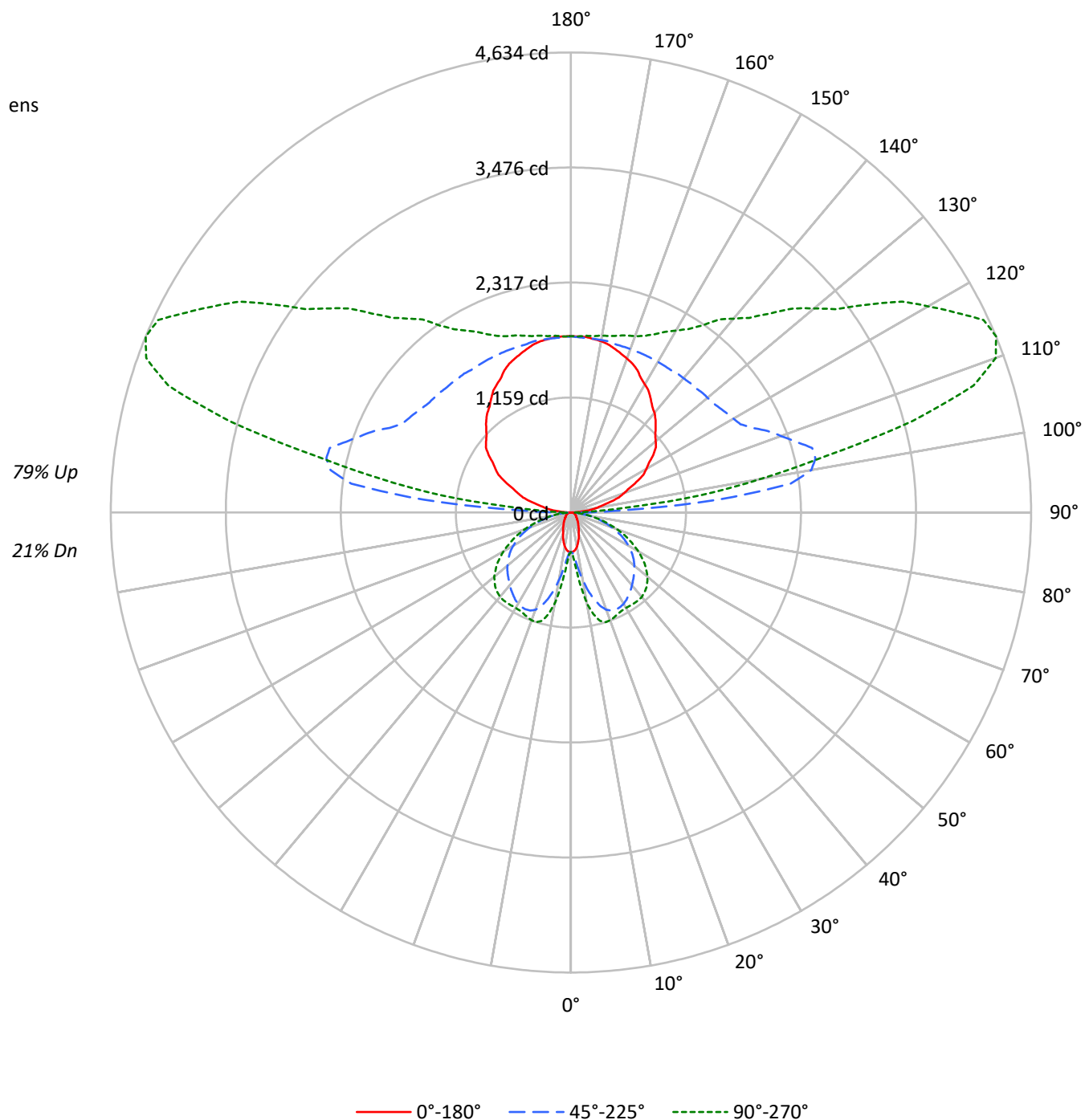
Lumens per Lamp: N/A
Luminaire Lumens: 14595.3 lumens
Efficiency: N/A
Efficacy: 131.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

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: P938295

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-4000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1848	1848	1848
5°	1806	2136	2484
10°	1638	3114	4119
15°	1392	4069	4973
20°	1133	4715	5069
25°	945	4933	4965
30°	797	4965	4956
35°	705	4882	5084
40°	614	4775	5217
45°	557	4696	5237
50°	510	4626	5151
55°	489	4522	4922
60°	500	4324	4562
65°	521	4022	4066
70°	555	3508	3436
75°	615	2860	2681
80°	671	1983	1806
85°	596	1053	925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5237 cd/sqm

TEST NUMBER: P938295

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.5	0.4
10°-20°	228.4	1.6
20°-30°	399.5	2.7
30°-40°	514.2	3.5
40°-50°	574.4	3.9
50°-60°	550.2	3.8
60°-70°	436.0	3.0
70°-80°	256.4	1.8
80°-90°	78.0	0.5
90°-100°	865.2	5.9
100°-110°	2274.7	15.6
110°-120°	2358.7	16.2
120°-130°	1891.9	13.0
130°-140°	1484.5	10.2
140°-150°	1139.4	7.8
150°-160°	820.6	5.6
160°-170°	502.1	3.4
170°-180°	169.6	1.2
0°-30°	679.4	4.7
0°-40°	1193.6	8.2
0°-60°	2318.2	15.9
0°-90°	3088.6	21.2
90°-120°	5498.6	37.7
90°-150°	10014.5	68.6
90°-180°	11507.0	78.8
0°-180°	14595.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	388	416	469	530	550	36
15°	291	537	904	1096	1131	81
25°	186	608	1077	1125	1126	86
35°	126	582	1014	1072	1114	78
45°	86	464	897	1027	1073	66
55°	62	295	761	884	908	56
65°	49	156	565	635	644	48
75°	36	96	310	341	342	38
85°	13	29	77	84	86	14
90°	12	33	90	45	45	11
95°	114	448	1490	768	523	127
105°	410	621	2515	3818	3562	434
115°	728	884	2014	4018	4586	719
125°	1013	1135	1832	3096	3652	899
135°	1207	1328	1775	2499	2834	934
145°	1400	1489	1752	2132	2299	877
155°	1582	1626	1752	1924	1980	727
165°	1707	1730	1752	1822	1844	482
175°	1775	1775	1764	1787	1787	168
180°	1775	1775	1775	1775	1775	

TEST NUMBER: P938295

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3
2.5°	398.3	398.3	400.9	402.2	404.7	406.1	408.6	411.2	418.9	420.1	422.7
5°	388.1	393.3	409.9	416.3	434.2	458.6	468.8	485.4	520.1	530.3	536.7
7.5°	372.7	384.3	425.3	435.5	480.4	544.4	571.3	607.2	662.2	689.1	710.9
10°	348.4	372.7	445.8	470.1	543.1	640.4	690.5	740.4	823.6	860.7	874.9
12.5°	321.5	361.2	467.6	500.8	605.9	748.1	808.3	863.3	958.2	1008.1	1015.7
15°	290.8	344.6	488.0	536.7	672.5	837.7	904.4	972.2	1060.6	1096.4	1105.4
17.5°	263.9	331.8	507.3	558.5	723.7	918.4	986.3	1042.7	1114.4	1138.7	1145.1
20°	230.5	311.2	520.1	586.7	777.6	977.3	1042.7	1086.2	1134.9	1150.3	1152.9
22.5°	206.2	289.5	527.7	596.9	813.4	1013.3	1068.3	1102.9	1136.2	1141.3	1142.6
25°	185.7	265.1	526.5	608.4	844.1	1035.0	1077.2	1102.9	1122.1	1124.7	1124.7
27.5°	166.6	238.3	521.3	611.0	867.2	1040.1	1073.4	1091.4	1100.4	1105.4	1105.4
30°	149.8	212.7	508.5	605.9	877.5	1035.0	1061.9	1070.8	1079.8	1087.6	1091.4
32.5°	137.0	188.3	489.3	595.6	878.7	1022.1	1041.4	1046.5	1059.3	1077.2	1083.6
35°	125.5	164.0	467.6	581.5	871.1	1001.7	1014.5	1019.7	1045.2	1072.2	1081.1
37.5°	114.0	146.0	439.4	557.2	859.5	977.3	986.3	995.3	1035.0	1067.0	1077.2
40°	102.5	130.6	406.1	530.3	841.5	947.9	955.6	969.7	1022.1	1059.3	1069.6
42.5°	93.5	117.8	370.2	502.1	818.5	914.6	926.2	946.6	1006.9	1046.5	1058.0
45°	85.9	105.0	331.8	463.7	789.0	880.0	896.6	924.8	988.9	1027.3	1037.5
47.5°	78.1	96.1	292.0	424.0	757.0	845.5	867.2	899.2	964.6	1001.7	1010.7
50°	71.7	87.1	252.3	381.7	722.5	808.3	833.9	867.2	933.8	968.4	979.9
52.5°	66.6	79.5	215.2	339.4	682.7	769.8	799.3	833.9	896.6	930.0	937.6
55°	61.5	73.1	183.2	294.6	641.8	728.9	760.8	794.2	855.7	883.9	889.0
57.5°	58.9	67.9	156.2	252.3	598.2	682.7	718.6	749.4	807.0	828.7	833.9
60°	55.1	64.1	135.8	216.5	550.8	639.2	669.9	700.7	749.4	767.2	771.2
62.5°	51.3	61.5	120.4	181.9	502.1	588.0	618.6	646.9	687.9	700.7	705.8
65°	48.7	58.9	108.9	156.2	452.2	534.1	564.9	589.2	622.6	635.4	637.9
67.5°	46.1	56.3	99.9	134.5	402.2	480.4	503.4	526.5	552.1	564.9	566.1
70°	42.3	53.8	92.3	119.1	351.0	418.9	438.1	462.4	482.9	489.3	493.2
72.5°	39.7	49.9	87.1	107.6	298.4	359.9	377.9	391.9	409.9	416.3	416.3
75°	35.9	44.8	81.9	96.1	244.7	294.6	310.0	324.0	338.2	340.7	336.9
77.5°	32.0	39.7	70.5	80.7	190.9	233.1	245.9	253.6	265.1	267.7	269.0
80°	26.9	34.6	55.1	62.7	138.4	171.6	180.6	187.0	197.3	197.3	199.8
82.5°	20.5	26.9	39.7	44.8	93.5	117.8	125.5	129.4	135.8	135.8	135.8
85°	12.8	16.6	25.6	29.4	56.3	71.7	76.9	78.1	83.3	84.5	84.5
87.5°	6.4	9.0	16.6	18.0	29.4	37.1	37.1	39.7	39.7	38.4	37.1
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	323.3	447.7	509.9	446.8	320.9	226.3	217.4
95°	114.4	262.6	410.8	447.9	795.3	1258.6	1490.3	1329.8	1009.1	768.4	741.1
97.5°	197.8	328.5	459.4	492.0	1071.4	1843.9	2230.1	2128.7	1925.9	1773.8	1722.0
100°	262.1	380.7	499.3	529.0	1171.9	2029.0	2457.6	2465.0	2479.8	2490.9	2429.1
102.5°	316.9	427.6	538.1	565.8	1217.9	2087.2	2522.0	2651.2	2909.5	3103.3	3050.4
105°	409.8	503.5	597.3	620.7	1252.0	2093.8	2514.8	2804.5	3383.7	3818.1	3789.6
107.5°	505.1	592.5	679.8	701.6	1258.4	2000.7	2371.8	2775.8	3583.8	4189.8	4196.7
110°	569.5	648.3	727.2	746.9	1248.9	1918.1	2252.7	2704.4	3607.6	4285.1	4314.7

TEST NUMBER: P938295

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-8-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	632.6	707.8	782.9	801.7	1249.2	1845.9	2144.3	2606.5	3530.9	4224.3	4269.8
115°	727.9	797.2	866.6	883.9	1260.8	1763.2	2014.5	2459.7	3350.2	4018.2	4081.3
117.5°	822.0	885.0	948.0	963.8	1284.2	1711.5	1925.1	2327.0	3130.7	3733.5	3803.5
120°	876.8	936.1	995.4	1010.2	1303.3	1694.0	1889.4	2256.6	2991.0	3541.7	3609.7
122.5°	930.4	990.2	1050.0	1065.0	1330.7	1684.9	1862.0	2192.6	2853.9	3349.9	3417.0
125°	1012.6	1067.1	1121.6	1135.3	1367.6	1677.3	1832.2	2113.0	2674.8	3096.1	3157.9
127.5°	1079.3	1134.3	1189.5	1203.2	1404.5	1673.0	1807.1	2048.3	2530.7	2892.4	2944.6
130°	1115.1	1174.4	1233.7	1248.5	1431.5	1675.5	1797.6	2012.3	2441.7	2763.8	2812.0
132.5°	1152.0	1211.3	1270.6	1285.4	1453.4	1677.4	1789.3	1981.4	2365.8	2654.1	2697.3
135°	1206.7	1260.8	1314.8	1328.3	1477.2	1675.7	1775.0	1936.0	2257.9	2499.3	2536.5
137.5°	1262.8	1316.3	1369.7	1383.0	1512.9	1686.1	1772.7	1908.8	2180.8	2384.9	2415.4
140°	1309.2	1358.5	1407.7	1420.0	1534.8	1687.8	1764.3	1881.8	2116.9	2293.2	2321.7
142.5°	1344.9	1390.5	1436.0	1447.4	1553.0	1693.9	1764.3	1867.5	2074.0	2228.9	2253.3
145°	1399.7	1439.5	1479.2	1489.1	1576.9	1693.9	1752.3	1836.8	2005.7	2132.4	2150.9
147.5°	1454.6	1493.2	1531.9	1541.6	1611.8	1705.5	1752.3	1818.8	1951.6	2051.3	2066.7
150°	1490.3	1525.2	1560.2	1568.9	1630.0	1711.6	1752.3	1808.5	1920.7	2004.9	2017.3
152.5°	1527.2	1553.7	1580.2	1586.8	1642.0	1715.6	1752.3	1800.3	1896.1	1968.0	1977.3
155°	1582.1	1601.6	1621.2	1626.1	1668.2	1724.3	1752.3	1790.4	1866.7	1923.9	1930.2
157.5°	1622.5	1641.6	1660.6	1665.4	1694.4	1733.0	1752.3	1782.0	1841.3	1885.8	1890.2
160°	1650.0	1664.8	1679.6	1683.3	1706.3	1737.0	1752.3	1777.7	1828.6	1866.7	1869.2
162.5°	1677.4	1688.4	1699.6	1702.4	1719.0	1741.3	1752.3	1773.8	1816.7	1848.9	1851.3
165°	1707.1	1717.1	1727.2	1729.7	1737.2	1747.3	1752.3	1767.7	1798.5	1821.5	1824.0
167.5°	1734.5	1739.2	1744.0	1745.3	1751.6	1760.1	1764.3	1774.3	1794.4	1809.5	1810.6
170°	1752.3	1757.1	1761.9	1763.1	1763.5	1764.0	1764.3	1774.3	1794.4	1809.5	1809.5
172.5°	1761.9	1762.9	1764.0	1764.3	1764.3	1764.3	1764.3	1772.2	1788.0	1800.0	1799.0
175°	1775.0	1775.0	1775.0	1775.0	1771.4	1766.7	1764.3	1769.3	1779.4	1786.9	1786.9
177.5°	1775.0	1775.0	1775.0	1775.0	1772.2	1768.5	1766.7	1770.7	1778.6	1784.5	1783.5
180°	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	398.3	398.3
2.5°	425.3	422.7
5°	546.9	549.5
7.5°	736.5	735.3
10°	915.8	927.4
12.5°	1046.5	1049.1
15°	1125.9	1131.1
17.5°	1156.7	1157.9
20°	1157.9	1155.4
22.5°	1143.9	1141.3
25°	1127.2	1125.9
27.5°	1111.8	1113.1
30°	1105.4	1109.3
32.5°	1105.4	1111.8
35°	1108.0	1114.4
37.5°	1106.7	1114.4
40°	1101.6	1110.6
42.5°	1087.6	1094.0
45°	1065.8	1073.4
47.5°	1037.5	1042.7
50°	1001.7	1006.9
52.5°	956.8	958.2
55°	903.0	908.2
57.5°	845.5	846.7
60°	781.4	785.2
62.5°	713.5	713.5
65°	641.8	644.3
67.5°	567.5	573.9
70°	491.9	493.2
72.5°	417.6	417.6
75°	340.7	342.0
77.5°	267.7	267.7
80°	198.5	199.8
82.5°	137.0	139.6
85°	85.9	85.9
87.5°	39.7	35.9
90°	45.3	45.3
92.5°	181.4	145.4
95°	632.0	523.0
97.5°	1514.3	1306.8
100°	2181.9	1934.6
102.5°	2838.5	2626.8
105°	3675.8	3562.0
107.5°	4224.2	4251.7
110°	4433.3	4551.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4451.9	4634.0
115°	4333.9	4586.4
117.5°	4083.6	4363.7
120°	3881.9	4154.0
122.5°	3685.4	3953.9
125°	3405.2	3652.5
127.5°	3153.2	3361.8
130°	3004.7	3197.4
132.5°	2869.9	3042.5
135°	2685.3	2834.1
137.5°	2537.1	2658.9
140°	2435.5	2549.4
142.5°	2351.3	2449.3
145°	2225.1	2299.2
147.5°	2128.1	2189.5
150°	2067.2	2116.9
152.5°	2015.0	2052.6
155°	1955.1	1979.9
157.5°	1907.6	1925.1
160°	1879.3	1889.4
162.5°	1860.7	1870.3
165°	1834.1	1844.1
167.5°	1814.9	1819.1
170°	1809.5	1809.5
172.5°	1795.4	1791.7
175°	1786.9	1786.9
177.5°	1779.2	1775.0
180°	1775.0	1775.0

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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	0.23	0.73	1.38	3.01	12.74	13.41	13.91	14.56	16.19
	3H	0.25	0.85	1.43	2.01	3.65	14.57	15.16	15.74	16.32	17.97
	4H	0.54	1.11	1.72	2.27	3.92	15.20	15.77	16.38	16.93	18.58
	6H	0.78	1.30	1.97	2.47	4.12	15.62	16.14	16.81	17.31	18.97
	8H	0.84	1.34	2.03	2.52	4.17	15.74	16.23	16.93	17.41	19.06
	12H	0.85	1.32	2.05	2.50	4.17	15.80	16.27	16.99	17.44	19.12
4H	2H	6.75	7.32	7.94	8.48	10.13	12.99	13.56	14.18	14.72	16.37
	3H	8.30	8.78	9.50	9.96	11.62	15.02	15.49	16.21	16.68	18.34
	4H	8.39	8.83	9.58	10.00	11.68	15.78	16.21	16.97	17.39	19.07
	6H	8.39	8.76	9.59	9.96	11.63	16.30	16.68	17.50	17.88	19.54
	8H	8.36	8.71	9.56	9.90	11.58	16.46	16.81	17.66	18.00	19.68
	12H	8.31	8.62	9.52	9.82	11.51	16.54	16.86	17.76	18.06	19.75
8H	4H	9.82	10.17	11.02	11.35	13.04	15.82	16.17	17.02	17.36	19.04
	6H	10.05	10.34	11.27	11.57	13.25	16.44	16.73	17.66	17.96	19.64
	8H	10.06	10.32	11.29	11.52	13.22	16.66	16.91	17.88	18.11	19.82
	12H	10.02	10.24	11.25	11.45	13.18	16.79	17.01	18.02	18.22	19.95
12H	4H	9.95	10.27	11.16	11.47	13.16	15.76	16.08	16.98	17.28	18.97
	6H	10.31	10.56	11.53	11.76	13.47	16.42	16.67	17.64	17.88	19.58
	8H	10.36	10.59	11.59	11.79	13.52	16.64	16.86	17.87	18.07	19.80