

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: P937854

Luminaire Tested: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937854
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

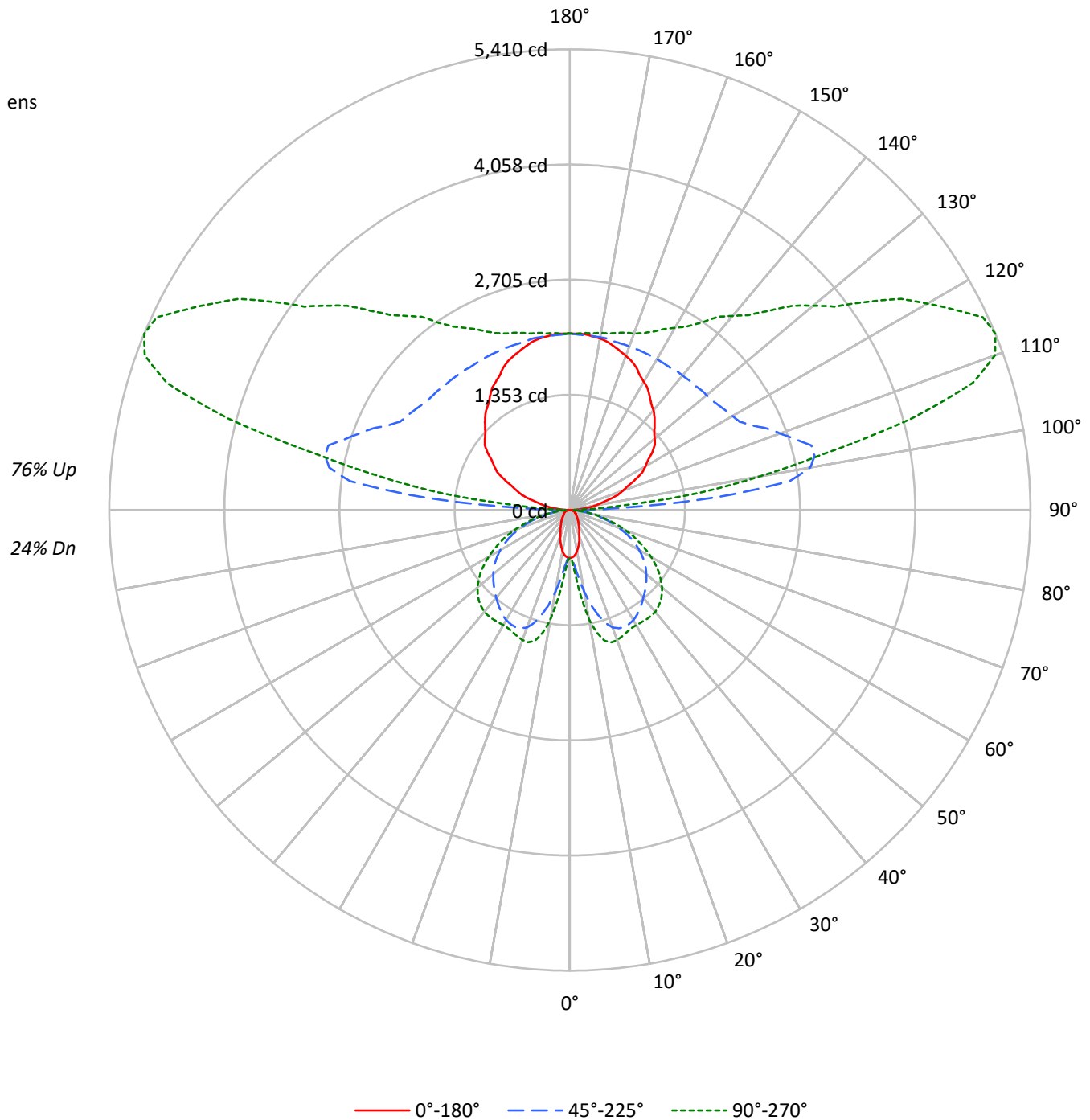
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17774.6 lumens
Efficiency: N/A
Efficacy: 124.5 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): 142.8
Input Voltage (V): NR
Input Current (A_{in}): 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	50	30	10	0
RCR																					
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24			24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20			20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16			16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19	13			13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11			11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10			10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8			8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7			7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6			6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6			6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5			5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1733	1733	1733
5°	1694	2003	2329
10°	1537	2921	3862
15°	1307	3817	4663
20°	1064	4425	4752
25°	888	4631	4656
30°	749	4662	4647
35°	663	4586	4767
40°	578	4487	4891
45°	524	4414	4911
50°	481	4349	4829
55°	461	4254	4615
60°	472	4069	4277
65°	493	3787	3812
70°	525	3305	3221
75°	584	2696	2514
80°	645	1872	1693
85°	583	995	867

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 5159 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	0.4
10°-20°	321.2	1.8
20°-30°	561.8	3.2
30°-40°	723.2	4.1
40°-50°	807.8	4.5
50°-60°	773.7	4.4
60°-70°	613.2	3.4
70°-80°	360.6	2.0
80°-90°	108.1	0.6
90°-100°	1010.0	5.7
100°-110°	2655.4	14.9
110°-120°	2753.4	15.5
120°-130°	2208.6	12.4
130°-140°	1733.0	9.7
140°-150°	1330.1	7.5
150°-160°	957.9	5.4
160°-170°	586.1	3.3
170°-180°	198.0	1.1
0°-30°	955.5	5.4
0°-40°	1678.7	9.4
0°-60°	3260.3	18.3
0°-90°	4342.1	24.4
90°-120°	6418.9	36.1
90°-150°	11690.5	65.8
90°-180°	13433.0	75.6
0°-180°	17774.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	546	585	659	746	773	50
15°	409	755	1272	1542	1591	114
25°	261	856	1515	1582	1584	120
35°	177	818	1427	1508	1567	110
45°	121	652	1261	1445	1510	93
55°	86	414	1070	1243	1277	79
65°	68	220	794	894	906	68
75°	50	135	436	479	481	53
85°	18	42	108	119	121	19
90°	14	39	106	53	53	13
95°	134	523	1740	897	610	148
105°	478	725	2936	4457	4158	507
115°	850	1032	2352	4691	5354	839
125°	1182	1325	2139	3614	4264	1049
135°	1409	1551	2072	2918	3308	1090
145°	1634	1738	2046	2489	2684	1024
155°	1847	1898	2046	2246	2311	849
165°	1993	2019	2046	2126	2153	562
175°	2072	2072	2060	2086	2086	197
180°	2072	2072	2072	2072	2072	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3	560.3
2.5°	560.3	560.3	563.9	565.7	569.2	571.0	574.7	578.3	589.1	590.9	594.5
5°	545.9	553.0	576.5	585.4	610.7	644.9	659.3	682.8	731.4	745.8	754.8
7.5°	524.2	540.4	598.1	612.5	675.6	765.7	803.5	853.9	931.4	969.2	999.8
10°	490.0	524.2	626.9	661.2	763.8	900.8	971.0	1041.2	1158.4	1210.6	1230.4
12.5°	452.1	508.0	657.5	704.3	852.1	1052.1	1136.8	1214.2	1347.5	1417.8	1428.6
15°	409.0	484.6	686.3	754.8	945.8	1178.1	1271.9	1367.3	1491.7	1542.1	1554.7
17.5°	371.1	466.5	713.4	785.5	1017.9	1291.7	1387.1	1466.4	1567.3	1601.5	1610.6
20°	324.3	437.8	731.4	825.1	1093.5	1374.6	1466.4	1527.7	1596.2	1617.7	1621.3
22.5°	290.1	407.1	742.2	839.5	1143.9	1425.0	1502.4	1551.1	1598.0	1605.1	1606.9
25°	261.3	372.9	740.4	855.7	1187.2	1455.6	1515.0	1551.1	1578.1	1581.7	1581.7
27.5°	234.2	335.1	733.2	859.3	1219.6	1462.9	1509.7	1534.8	1547.5	1554.7	1554.7
30°	210.8	299.0	715.2	852.1	1234.0	1455.6	1493.5	1506.1	1518.6	1529.5	1534.8
32.5°	192.8	264.8	688.1	837.7	1235.8	1437.6	1464.6	1471.8	1489.8	1515.0	1524.1
35°	176.6	230.6	657.5	817.9	1225.1	1408.8	1426.8	1434.0	1470.0	1507.9	1520.4
37.5°	160.4	205.4	617.9	783.7	1208.8	1374.6	1387.1	1399.7	1455.6	1500.6	1515.0
40°	144.1	183.7	571.0	745.8	1183.6	1333.1	1344.0	1363.7	1437.6	1489.8	1504.2
42.5°	131.5	165.7	520.6	706.2	1151.2	1286.3	1302.5	1331.3	1415.9	1471.8	1488.0
45°	120.7	147.7	466.5	652.1	1109.7	1237.6	1261.0	1300.7	1390.8	1444.8	1459.2
47.5°	109.9	135.1	410.8	596.3	1064.7	1189.0	1219.6	1264.6	1356.5	1408.8	1421.4
50°	100.9	122.5	354.9	536.8	1016.0	1136.8	1172.8	1219.6	1313.3	1361.9	1378.2
52.5°	93.6	111.7	302.6	477.4	960.2	1082.7	1124.2	1172.8	1261.0	1307.9	1318.7
55°	86.5	102.7	257.6	414.4	902.6	1025.0	1070.1	1116.9	1203.4	1243.1	1250.2
57.5°	82.9	95.4	219.8	354.9	841.3	960.2	1010.6	1053.9	1134.9	1165.6	1172.8
60°	77.4	90.1	191.0	304.5	774.6	899.0	942.2	985.4	1053.9	1079.1	1084.5
62.5°	72.1	86.5	169.3	255.8	706.2	826.9	870.2	909.7	967.4	985.4	992.6
65°	68.5	82.9	153.1	219.8	635.9	751.3	794.5	828.7	875.5	893.5	897.1
67.5°	64.8	79.2	140.5	189.2	565.7	675.6	708.0	740.4	776.4	794.5	796.3
70°	59.4	75.7	129.7	167.5	493.6	589.1	616.2	650.4	679.2	688.1	693.6
72.5°	55.9	70.3	122.5	151.3	419.7	506.2	531.5	551.2	576.5	585.4	585.4
75°	50.4	63.0	115.3	135.1	344.1	414.4	435.9	455.8	475.6	479.2	473.8
77.5°	45.0	55.9	99.1	113.5	268.4	327.9	345.9	356.7	372.9	376.5	378.3
80°	37.9	48.6	77.4	88.3	194.6	241.4	254.0	263.0	277.5	277.5	281.0
82.5°	28.8	37.9	55.9	63.0	131.5	165.7	176.6	181.9	191.0	191.0	191.0
85°	18.0	23.5	36.0	41.5	79.2	100.9	108.1	109.9	117.1	118.9	118.9
87.5°	9.0	12.6	23.5	25.2	41.5	52.3	52.3	55.9	55.9	54.1	52.3
90°	13.9	25.0	36.2	38.9	61.1	90.8	105.6	93.9	70.5	52.8	52.8
92.5°	55.6	150.1	244.8	268.4	377.4	522.6	595.2	521.6	374.5	264.2	253.7
95°	133.5	306.6	479.6	522.9	928.4	1469.3	1739.7	1552.4	1177.9	897.0	865.1
97.5°	230.8	383.5	536.2	574.3	1250.7	2152.4	2603.3	2484.9	2248.2	2070.7	2010.1
100°	305.9	444.4	582.8	617.5	1367.9	2368.6	2868.9	2877.6	2894.9	2907.9	2835.7
102.5°	369.9	499.1	628.2	660.6	1421.8	2436.6	2944.1	3094.8	3396.5	3622.7	3560.9
105°	478.4	587.8	697.2	724.6	1461.6	2444.3	2935.6	3273.7	3949.9	4457.0	4423.8
107.5°	589.7	691.6	793.6	819.1	1469.0	2335.6	2768.8	3240.4	4183.5	4890.9	4899.0
110°	664.8	756.8	848.9	871.9	1457.8	2239.1	2629.7	3157.0	4211.4	5002.2	5036.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	738.5	826.2	913.9	935.9	1458.3	2154.9	2503.2	3042.8	4121.9	4931.3	4984.5
115°	849.7	930.6	1011.6	1031.8	1471.8	2058.3	2351.6	2871.4	3911.0	4690.7	4764.4
117.5°	959.6	1033.1	1106.7	1125.0	1499.1	1997.9	2247.3	2716.5	3654.7	4358.3	4440.0
120°	1023.5	1092.7	1162.0	1179.3	1521.4	1977.6	2205.6	2634.3	3491.5	4134.5	4213.9
122.5°	1086.1	1155.9	1225.8	1243.2	1553.4	1966.9	2173.6	2559.6	3331.5	3910.5	3988.9
125°	1182.1	1245.7	1309.4	1325.3	1596.5	1958.0	2138.8	2466.7	3122.5	3614.3	3686.4
127.5°	1260.0	1324.3	1388.5	1404.6	1639.6	1952.9	2109.6	2391.1	2954.2	3376.5	3437.4
130°	1301.7	1370.9	1440.1	1457.4	1671.1	1956.1	2098.5	2349.1	2850.4	3226.3	3282.6
132.5°	1344.8	1414.0	1483.3	1500.5	1696.6	1958.0	2088.8	2313.1	2761.9	3098.4	3148.8
135°	1408.8	1471.8	1534.8	1550.6	1724.5	1956.3	2072.1	2260.0	2635.8	2917.6	2961.1
137.5°	1474.1	1536.5	1598.9	1614.5	1766.1	1968.3	2069.3	2228.2	2545.8	2784.1	2819.6
140°	1528.3	1585.8	1643.3	1657.7	1791.6	1970.2	2059.6	2196.7	2471.2	2677.0	2710.2
142.5°	1570.0	1623.2	1676.4	1689.6	1812.9	1977.4	2059.6	2180.1	2421.2	2602.0	2630.5
145°	1634.0	1680.4	1726.8	1738.3	1840.8	1977.4	2045.7	2144.3	2341.4	2489.2	2510.9
147.5°	1698.0	1743.1	1788.2	1799.5	1881.6	1991.0	2045.7	2123.2	2278.4	2394.7	2412.6
150°	1739.7	1780.5	1821.3	1831.5	1902.9	1998.1	2045.7	2111.2	2242.2	2340.4	2354.9
152.5°	1782.8	1813.7	1844.7	1852.4	1916.9	2002.7	2045.7	2101.7	2213.5	2297.4	2308.4
155°	1846.8	1869.7	1892.5	1898.2	1947.4	2012.9	2045.7	2090.2	2179.2	2245.9	2253.1
157.5°	1894.1	1916.3	1938.6	1944.2	1978.0	2023.1	2045.7	2080.3	2149.5	2201.4	2206.5
160°	1926.1	1943.4	1960.7	1965.0	1991.9	2027.8	2045.7	2075.3	2134.7	2179.2	2182.1
162.5°	1958.0	1971.0	1984.0	1987.2	2006.8	2032.7	2045.7	2070.8	2120.8	2158.3	2161.1
165°	1992.8	2004.5	2016.2	2019.2	2028.1	2039.8	2045.7	2063.6	2099.4	2126.3	2129.2
167.5°	2024.8	2030.4	2035.9	2037.3	2044.7	2054.7	2059.6	2071.3	2094.8	2112.4	2113.7
170°	2045.7	2051.2	2056.8	2058.1	2058.6	2059.2	2059.6	2071.3	2094.8	2112.4	2112.4
172.5°	2056.8	2058.1	2059.3	2059.6	2059.6	2059.6	2059.6	2068.9	2087.4	2101.3	2100.2
175°	2072.1	2072.1	2072.1	2072.1	2067.9	2062.4	2059.6	2065.5	2077.2	2086.0	2086.0
177.5°	2072.1	2072.1	2072.1	2072.1	2068.9	2064.5	2062.4	2067.0	2076.2	2083.2	2082.0
180°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	560.3	560.3
2.5°	598.1	594.5
5°	769.3	772.8
7.5°	1035.9	1034.1
10°	1288.1	1304.3
12.5°	1471.8	1475.4
15°	1583.5	1590.7
17.5°	1626.8	1628.6
20°	1628.6	1625.0
22.5°	1608.7	1605.1
25°	1585.3	1583.5
27.5°	1563.7	1565.5
30°	1554.7	1560.1
32.5°	1554.7	1563.7
35°	1558.3	1567.3
37.5°	1556.5	1567.3
40°	1549.2	1561.9
42.5°	1529.5	1538.5
45°	1498.8	1509.7
47.5°	1459.2	1466.4
50°	1408.8	1415.9
52.5°	1345.7	1347.5
55°	1270.1	1277.3
57.5°	1189.0	1190.8
60°	1098.9	1104.3
62.5°	1003.5	1003.5
65°	902.6	906.1
67.5°	798.1	807.0
70°	691.8	693.6
72.5°	587.3	587.3
75°	479.2	481.0
77.5°	376.5	376.5
80°	279.2	281.0
82.5°	192.8	196.3
85°	120.7	120.7
87.5°	55.9	50.4
90°	52.8	52.8
92.5°	211.7	169.7
95°	737.8	610.5
97.5°	1767.8	1525.5
100°	2547.1	2258.4
102.5°	3313.6	3066.4
105°	4291.0	4158.1
107.5°	4931.1	4963.3
110°	5175.3	5313.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5197.0	5409.7
115°	5059.2	5354.1
117.5°	4767.0	5094.0
120°	4531.5	4849.2
122.5°	4302.2	4615.6
125°	3975.1	4263.7
127.5°	3680.9	3924.4
130°	3507.6	3732.6
132.5°	3350.3	3551.7
135°	3134.7	3308.4
137.5°	2961.8	3104.0
140°	2843.2	2976.0
142.5°	2744.8	2859.2
145°	2597.4	2684.0
147.5°	2484.3	2556.0
150°	2413.1	2471.2
152.5°	2352.3	2396.1
155°	2282.2	2311.2
157.5°	2226.9	2247.3
160°	2193.9	2205.6
162.5°	2172.2	2183.3
165°	2141.0	2152.8
167.5°	2118.6	2123.5
170°	2112.4	2112.4
172.5°	2095.8	2091.5
175°	2086.0	2086.0
177.5°	2077.0	2072.1
180°	2072.1	2072.1



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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	0.00	0.59	1.05	1.73	3.32	13.10	13.79	14.24	14.92	16.52
	3H	0.60	1.21	1.75	2.36	3.97	14.93	15.55	16.08	16.69	18.30
	4H	0.89	1.47	2.05	2.62	4.23	15.57	16.16	16.73	17.30	18.91
	6H	1.13	1.67	2.30	2.81	4.44	16.00	16.53	17.17	17.68	19.31
	8H	1.19	1.70	2.36	2.87	4.48	16.11	16.63	17.29	17.79	19.41
	12H	1.20	1.69	2.38	2.85	4.49	16.18	16.66	17.35	17.82	19.46
4H	2H	7.11	7.69	8.28	8.84	10.45	13.35	13.94	14.52	15.08	16.69
	3H	8.66	9.15	9.83	10.32	11.94	15.38	15.87	16.56	17.04	18.67
	4H	8.75	9.20	9.92	10.35	12.00	16.15	16.60	17.32	17.76	19.40
	6H	8.75	9.13	9.93	10.31	11.95	16.68	17.07	17.86	18.25	19.88
	8H	8.72	9.08	9.90	10.25	11.90	16.84	17.20	18.02	18.37	20.02
	12H	8.66	8.99	9.86	10.18	11.83	16.93	17.26	18.12	18.44	20.09
8H	4H	10.18	10.54	11.36	11.71	13.36	16.19	16.55	17.37	17.73	19.38
	6H	10.41	10.71	11.61	11.93	13.57	16.82	17.12	18.02	18.33	19.98
	8H	10.43	10.69	11.63	11.88	13.55	17.04	17.30	18.24	18.49	20.16
	12H	10.39	10.62	11.60	11.81	13.50	17.18	17.40	18.39	18.60	20.29
12H	4H	10.31	10.64	11.51	11.83	13.48	16.14	16.46	17.33	17.65	19.30
	6H	10.67	10.93	11.87	12.12	13.79	16.80	17.06	18.00	18.25	19.92
	8H	10.73	10.96	11.94	12.15	13.85	17.02	17.25	18.23	18.44	20.14