

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: P937856

Luminaire Tested: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937856
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-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

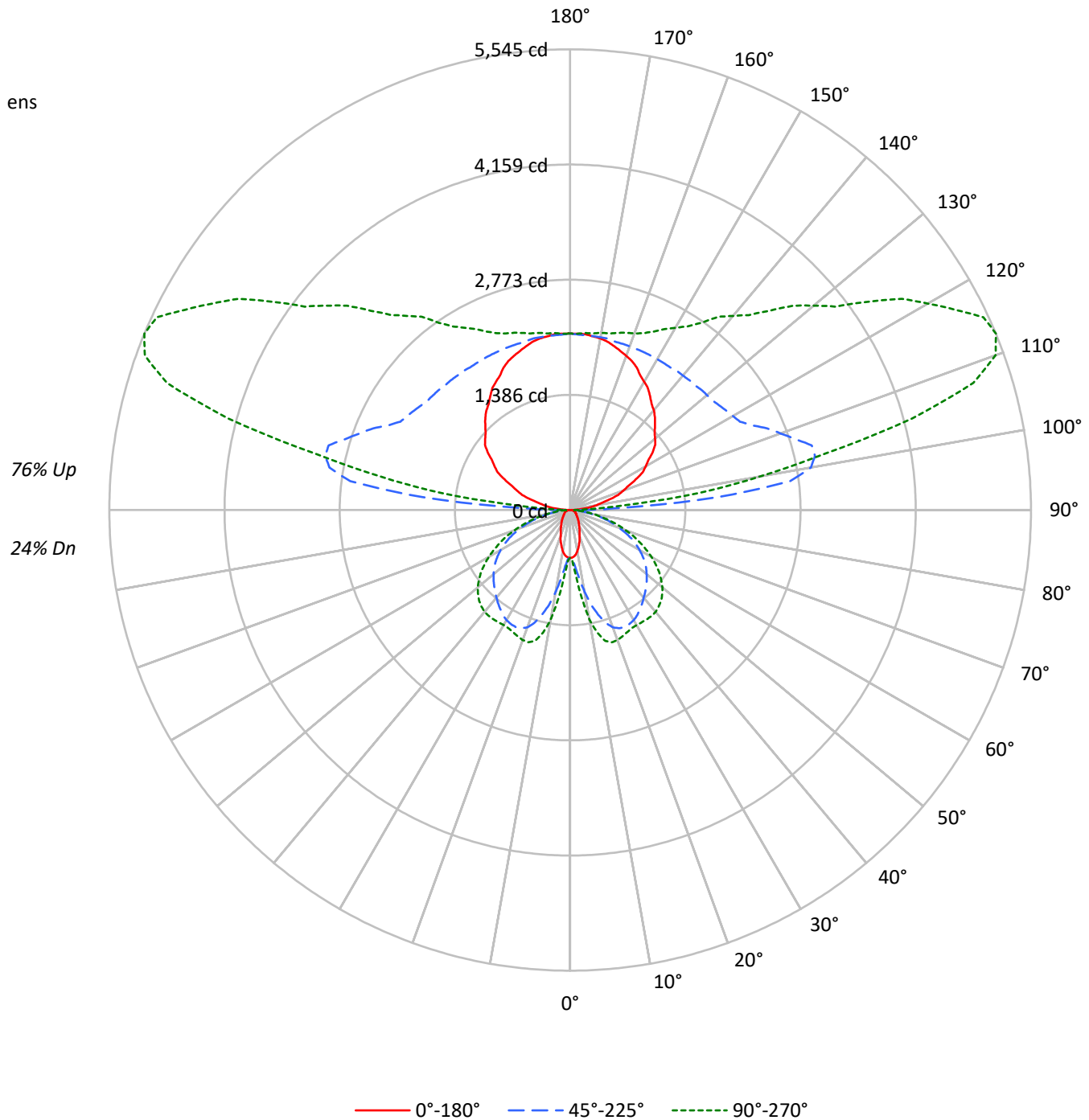
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18219.0 lumens
Efficiency: N/A
Efficacy: 127.6 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: 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°	1776	1776	1776
5°	1736	2053	2388
10°	1575	2994	3958
15°	1339	3913	4780
20°	1091	4535	4871
25°	910	4747	4772
30°	768	4778	4763
35°	679	4700	4886
40°	592	4599	5013
45°	537	4524	5033
50°	493	4458	4950
55°	472	4360	4730
60°	484	4171	4384
65°	505	3882	3908
70°	538	3388	3301
75°	599	2764	2576
80°	660	1920	1736
85°	596	1020	888

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 5271 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	0.4
10°-20°	329.2	1.8
20°-30°	575.9	3.2
30°-40°	741.3	4.1
40°-50°	828.0	4.5
50°-60°	793.1	4.4
60°-70°	628.5	3.4
70°-80°	369.6	2.0
80°-90°	110.8	0.6
90°-100°	1035.3	5.7
100°-110°	2721.8	14.9
110°-120°	2822.2	15.5
120°-130°	2263.8	12.4
130°-140°	1776.3	9.7
140°-150°	1363.4	7.5
150°-160°	981.9	5.4
160°-170°	600.7	3.3
170°-180°	203.0	1.1
0°-30°	979.4	5.4
0°-40°	1720.7	9.4
0°-60°	3341.8	18.3
0°-90°	4450.7	24.4
90°-120°	6579.4	36.1
90°-150°	11982.8	65.8
90°-180°	13768.0	75.6
0°-180°	18219.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	560	600	676	764	792	52
15°	419	774	1304	1581	1630	117
25°	268	877	1553	1621	1623	123
35°	181	838	1462	1546	1606	113
45°	124	668	1293	1481	1547	96
55°	89	425	1097	1274	1309	81
65°	70	225	814	916	929	70
75°	52	138	447	491	493	54
85°	18	42	111	122	124	20
90°	14	40	108	54	54	13
95°	137	536	1783	919	626	152
105°	490	743	3009	4568	4262	520
115°	871	1058	2410	4808	5488	860
125°	1212	1358	2192	3705	4370	1076
135°	1444	1589	2124	2991	3391	1117
145°	1675	1782	2097	2552	2751	1049
155°	1893	1946	2097	2302	2369	870
165°	2043	2070	2097	2179	2207	576
175°	2124	2124	2111	2138	2138	202
180°	2124	2124	2124	2124	2124	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3	574.3
2.5°	574.3	574.3	578.0	579.8	583.5	585.3	589.1	592.7	603.8	605.7	609.3
5°	559.5	566.9	590.9	600.1	626.0	661.0	675.8	699.8	749.7	764.4	773.7
7.5°	537.3	553.9	613.0	627.8	692.5	784.8	823.5	875.3	954.7	993.4	1024.8
10°	502.3	537.3	642.6	677.7	782.9	923.3	995.2	1067.3	1187.3	1240.9	1261.2
12.5°	463.4	520.7	674.0	722.0	873.4	1078.4	1165.2	1244.6	1381.2	1453.3	1464.3
15°	419.2	496.7	703.5	773.7	969.5	1207.6	1303.7	1401.5	1529.0	1580.6	1593.6
17.5°	380.4	478.2	731.2	805.1	1043.3	1324.0	1421.8	1503.1	1606.5	1641.6	1650.8
20°	332.4	448.8	749.7	845.7	1120.9	1408.9	1503.1	1565.9	1636.1	1658.2	1661.9
22.5°	297.3	417.3	760.8	860.5	1172.5	1460.6	1540.0	1589.9	1637.9	1645.2	1647.1
25°	267.8	382.2	758.9	877.1	1216.9	1492.0	1552.9	1589.9	1617.5	1621.3	1621.3
27.5°	240.1	343.5	751.5	880.8	1250.1	1499.4	1547.4	1573.2	1586.1	1593.6	1593.6
30°	216.0	306.5	733.1	873.4	1264.9	1492.0	1530.8	1543.7	1556.6	1567.7	1573.2
32.5°	197.6	271.5	705.3	858.6	1266.7	1473.5	1501.3	1508.6	1527.0	1552.9	1562.2
35°	181.0	236.4	674.0	838.3	1255.7	1444.0	1462.4	1469.9	1506.8	1545.6	1558.4
37.5°	164.4	210.5	633.4	803.3	1239.0	1408.9	1421.8	1434.7	1492.0	1538.1	1552.9
40°	147.7	188.3	585.3	764.4	1213.2	1366.4	1377.6	1397.8	1473.5	1527.0	1541.8
42.5°	134.8	169.9	533.6	723.9	1180.0	1318.5	1335.1	1364.6	1451.3	1508.6	1525.2
45°	123.7	151.4	478.2	668.4	1137.5	1268.5	1292.6	1333.2	1425.5	1480.9	1495.7
47.5°	112.6	138.5	421.0	611.2	1091.3	1218.7	1250.1	1296.2	1390.4	1444.0	1456.9
50°	103.4	125.5	363.8	550.2	1041.4	1165.2	1202.1	1250.1	1346.2	1396.0	1412.6
52.5°	96.0	114.5	310.2	489.3	984.2	1109.8	1152.3	1202.1	1292.6	1340.6	1351.7
55°	88.6	105.3	264.0	424.7	925.1	1050.7	1096.8	1144.8	1233.5	1274.1	1281.5
57.5°	85.0	97.8	225.3	363.8	862.4	984.2	1035.9	1080.2	1163.3	1194.7	1202.1
60°	79.4	92.3	195.7	312.1	794.0	921.5	965.8	1010.0	1080.2	1106.1	1111.6
62.5°	73.9	88.6	173.5	262.2	723.9	847.6	891.9	932.5	991.6	1010.0	1017.4
65°	70.2	85.0	156.9	225.3	651.8	770.0	814.4	849.4	897.4	915.9	919.5
67.5°	66.4	81.2	144.0	193.9	579.8	692.5	725.7	758.9	795.8	814.4	816.2
70°	60.9	77.5	133.0	171.7	505.9	603.8	631.6	666.6	696.2	705.3	710.9
72.5°	57.3	72.0	125.5	155.1	430.2	518.9	544.7	565.0	590.9	600.1	600.1
75°	51.7	64.6	118.2	138.5	352.7	424.7	446.8	467.2	487.5	491.2	485.6
77.5°	46.2	57.3	101.6	116.4	275.1	336.1	354.5	365.6	382.2	385.9	387.7
80°	38.8	49.8	79.4	90.5	199.4	247.4	260.4	269.6	284.4	284.4	288.1
82.5°	29.5	38.8	57.3	64.6	134.8	169.9	181.0	186.5	195.7	195.7	195.7
85°	18.4	24.0	36.9	42.5	81.2	103.4	110.8	112.6	120.0	121.9	121.9
87.5°	9.3	12.9	24.0	25.9	42.5	53.6	53.6	57.3	57.3	55.4	53.6
90°	14.2	25.6	37.1	39.9	62.7	93.1	108.3	96.3	72.2	54.1	54.1
92.5°	57.0	153.9	250.9	275.1	386.8	535.7	610.1	534.6	383.9	270.8	260.1
95°	136.8	314.2	491.6	535.9	951.6	1506.0	1783.2	1591.2	1207.3	919.4	886.8
97.5°	236.6	393.0	549.6	588.7	1281.9	2206.2	2668.4	2547.1	2304.4	2122.4	2060.3
100°	313.6	455.5	597.4	632.9	1402.1	2427.9	2940.7	2949.6	2967.3	2980.6	2906.6
102.5°	379.2	511.6	643.9	677.1	1457.3	2497.5	3017.7	3172.2	3481.4	3713.3	3649.9
105°	490.3	602.5	714.6	742.7	1498.1	2505.4	3009.0	3355.6	4048.7	4568.5	4534.4
107.5°	604.4	708.9	813.4	839.6	1505.8	2394.0	2838.1	3321.4	4288.1	5013.2	5021.4
110°	681.4	775.7	870.2	893.7	1494.3	2295.1	2695.5	3235.9	4316.7	5127.3	5162.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	756.9	846.8	936.8	959.3	1494.7	2208.8	2565.8	3118.9	4225.0	5054.6	5109.1
115°	870.9	953.9	1036.9	1057.6	1508.6	2109.8	2410.4	2943.2	4008.8	4808.0	4883.5
117.5°	983.6	1058.9	1134.4	1153.2	1536.6	2047.8	2303.5	2784.4	3746.0	4467.2	4551.0
120°	1049.1	1120.0	1191.1	1208.8	1559.4	2027.0	2260.7	2700.1	3578.8	4237.8	4319.2
122.5°	1113.3	1184.8	1256.4	1274.3	1592.2	2016.1	2228.0	2623.6	3414.8	4008.3	4088.6
125°	1211.6	1276.9	1342.1	1358.5	1636.4	2007.0	2192.3	2528.3	3200.6	3704.6	3778.6
127.5°	1291.5	1357.4	1423.3	1439.7	1680.6	2001.8	2162.4	2450.9	3028.0	3460.9	3523.3
130°	1334.2	1405.2	1476.1	1493.8	1712.9	2005.0	2151.0	2407.8	2921.7	3307.0	3364.6
132.5°	1378.4	1449.3	1520.3	1538.1	1739.0	2007.0	2141.0	2371.0	2830.9	3175.9	3227.5
135°	1444.0	1508.6	1573.2	1589.4	1767.6	2005.2	2123.9	2316.5	2701.7	2990.6	3035.1
137.5°	1511.0	1574.9	1638.9	1654.9	1810.2	2017.5	2121.1	2283.9	2609.5	2853.7	2890.1
140°	1566.5	1625.4	1684.3	1699.1	1836.4	2019.5	2111.1	2251.7	2532.9	2743.9	2778.0
142.5°	1609.3	1663.8	1718.3	1731.9	1858.2	2026.8	2111.1	2234.6	2481.7	2667.0	2696.3
145°	1674.9	1722.4	1770.0	1781.8	1886.8	2026.8	2096.8	2197.9	2400.0	2551.5	2573.7
147.5°	1740.4	1786.7	1832.9	1844.5	1928.6	2040.8	2096.8	2176.3	2335.4	2454.6	2472.9
150°	1783.2	1825.0	1866.9	1877.3	1950.5	2048.0	2096.8	2164.0	2298.3	2398.9	2413.8
152.5°	1827.4	1859.1	1890.8	1898.7	1964.8	2052.8	2096.8	2154.2	2268.8	2354.8	2366.1
155°	1892.9	1916.4	1939.8	1945.7	1996.1	2063.3	2096.8	2142.5	2233.7	2302.0	2309.5
157.5°	1941.5	1964.2	1987.1	1992.8	2027.5	2073.7	2096.8	2132.3	2203.2	2256.4	2261.7
160°	1974.2	1991.9	2009.8	2014.2	2041.7	2078.5	2096.8	2127.2	2188.1	2233.7	2236.7
162.5°	2007.0	2020.3	2033.6	2036.9	2056.9	2083.5	2096.8	2122.5	2173.8	2212.3	2215.1
165°	2042.6	2054.6	2066.6	2069.7	2078.8	2090.8	2096.8	2115.2	2151.9	2179.4	2182.5
167.5°	2075.5	2081.1	2086.8	2088.2	2095.8	2106.0	2111.1	2123.1	2147.1	2165.2	2166.5
170°	2096.8	2102.5	2108.2	2109.6	2110.1	2110.7	2111.1	2123.1	2147.1	2165.2	2165.2
172.5°	2108.2	2109.5	2110.8	2111.1	2111.1	2111.1	2111.1	2120.6	2139.6	2153.8	2152.7
175°	2123.9	2123.9	2123.9	2123.9	2119.6	2113.9	2111.1	2117.1	2129.1	2138.1	2138.1
177.5°	2123.9	2123.9	2123.9	2123.9	2120.6	2116.1	2113.9	2118.7	2128.1	2135.3	2134.0
180°	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9	2123.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	574.3	574.3
2.5°	613.0	609.3
5°	788.5	792.2
7.5°	1061.8	1059.9
10°	1320.3	1336.9
12.5°	1508.6	1512.3
15°	1623.1	1630.5
17.5°	1667.5	1669.3
20°	1669.3	1665.6
22.5°	1648.9	1645.2
25°	1625.0	1623.1
27.5°	1602.8	1604.7
30°	1593.6	1599.1
32.5°	1593.6	1602.8
35°	1597.2	1606.5
37.5°	1595.4	1606.5
40°	1588.0	1600.9
42.5°	1567.7	1577.0
45°	1536.3	1547.4
47.5°	1495.7	1503.1
50°	1444.0	1451.3
52.5°	1379.4	1381.2
55°	1301.8	1309.2
57.5°	1218.7	1220.5
60°	1126.4	1131.9
62.5°	1028.6	1028.6
65°	925.1	928.8
67.5°	818.0	827.2
70°	709.1	710.9
72.5°	602.0	602.0
75°	491.2	493.0
77.5°	385.9	385.9
80°	286.2	288.1
82.5°	197.6	201.3
85°	123.7	123.7
87.5°	57.3	51.7
90°	54.1	54.1
92.5°	216.9	173.9
95°	756.3	625.8
97.5°	1812.0	1563.7
100°	2610.8	2314.9
102.5°	3396.5	3143.1
105°	4398.2	4262.1
107.5°	5054.4	5087.3
110°	5304.6	5446.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5326.9	5544.9
115°	5185.7	5487.9
117.5°	4886.2	5221.3
120°	4644.8	4970.4
122.5°	4409.8	4731.0
125°	4074.5	4370.3
127.5°	3772.9	4022.5
130°	3595.3	3825.9
132.5°	3434.0	3640.5
135°	3213.0	3391.1
137.5°	3035.8	3181.6
140°	2914.2	3050.4
142.5°	2813.5	2930.7
145°	2662.3	2751.1
147.5°	2546.4	2619.9
150°	2473.5	2533.0
152.5°	2411.1	2456.0
155°	2339.3	2369.0
157.5°	2282.6	2303.5
160°	2248.7	2260.7
162.5°	2226.5	2237.9
165°	2194.5	2206.6
167.5°	2171.5	2176.6
170°	2165.2	2165.2
172.5°	2148.2	2143.8
175°	2138.1	2138.1
177.5°	2129.0	2123.9
180°	2123.9	2123.9



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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	0.68	1.14	1.82	3.41	13.18	13.87	14.33	15.01	16.60
	3H	0.68	1.30	1.84	2.44	4.05	15.02	15.63	16.17	16.78	18.38
	4H	0.97	1.56	2.13	2.70	4.32	15.66	16.24	16.82	17.39	19.00
	6H	1.21	1.75	2.38	2.90	4.52	16.08	16.62	17.25	17.77	19.39
	8H	1.28	1.79	2.45	2.95	4.57	16.20	16.71	17.37	17.87	19.49
	12H	1.29	1.77	2.46	2.93	4.57	16.26	16.75	17.44	17.91	19.55
4H	2H	7.19	7.78	8.36	8.93	10.54	13.44	14.02	14.61	15.17	16.78
	3H	8.74	9.23	9.92	10.40	12.03	15.47	15.96	16.64	17.13	18.76
	4H	8.83	9.28	10.01	10.44	12.08	16.23	16.68	17.41	17.84	19.49
	6H	8.83	9.22	10.01	10.40	12.03	16.77	17.15	17.95	18.33	19.97
	8H	8.80	9.16	9.98	10.34	11.99	16.93	17.29	18.11	18.46	20.11
	12H	8.75	9.08	9.95	10.26	11.92	17.01	17.34	18.21	18.52	20.18
8H	4H	10.26	10.62	11.44	11.80	13.45	16.28	16.64	17.46	17.81	19.46
	6H	10.50	10.80	11.70	12.01	13.66	16.90	17.20	18.10	18.42	20.06
	8H	10.51	10.77	11.72	11.96	13.63	17.12	17.38	18.33	18.58	20.24
	12H	10.47	10.70	11.68	11.89	13.59	17.26	17.49	18.47	18.68	20.38
12H	4H	10.40	10.73	11.60	11.91	13.57	16.22	16.55	17.42	17.73	19.39
	6H	10.76	11.02	11.96	12.21	13.88	16.88	17.14	18.09	18.34	20.00
	8H	10.82	11.04	12.03	12.23	13.93	17.11	17.34	18.32	18.53	20.23