

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: P938353

Luminaire Tested: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938353
REPORT IS A COMBINATION OF REPORTS P933622 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-93050-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

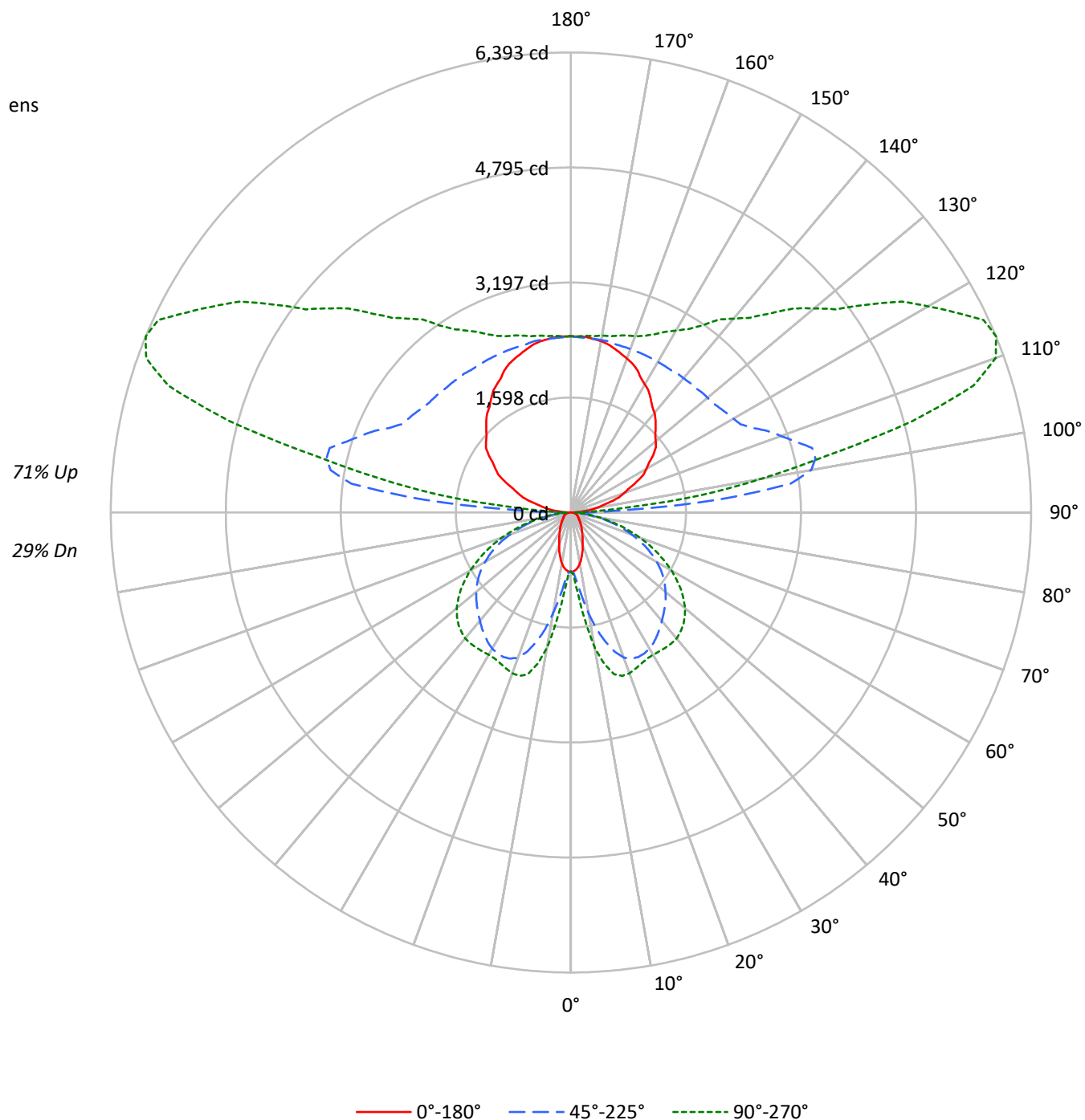
Lumens per Lamp: N/A
Luminaire Lumens: 22222.7 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 190.8
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: P938353

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2535	2535	2535
5°	2477	2930	3407
10°	2248	4273	5649
15°	1911	5583	6820
20°	1556	6472	6951
25°	1299	6774	6810
30°	1096	6819	6797
35°	969	6707	6973
40°	845	6562	7154
45°	766	6456	7182
50°	703	6361	7063
55°	674	6222	6750
60°	691	5951	6256
65°	720	5539	5577
70°	769	4833	4711
75°	855	3944	3676
80°	941	2739	2477
85°	852	1456	1268

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7182 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	0.5
10°-20°	469.8	2.1
20°-30°	821.8	3.7
30°-40°	1057.9	4.8
40°-50°	1181.6	5.3
50°-60°	1131.7	5.1
60°-70°	896.9	4.0
70°-80°	527.4	2.4
80°-90°	155.8	0.7
90°-100°	1193.6	5.4
100°-110°	3138.1	14.1
110°-120°	3253.8	14.6
120°-130°	2610.0	11.7
130°-140°	2047.9	9.2
140°-150°	1571.8	7.1
150°-160°	1132.0	5.1
160°-170°	692.6	3.1
170°-180°	234.0	1.1
0°-30°	1397.6	6.3
0°-40°	2455.5	11.0
0°-60°	4768.8	21.5
0°-90°	6348.9	28.6
90°-120°	7585.5	34.1
90°-150°	13815.2	62.2
90°-180°	15874.0	71.4
0°-180°	22222.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	798	856	964	1091	1130	74
15°	598	1104	1860	2256	2327	166
25°	382	1252	2216	2314	2316	176
35°	258	1196	2087	2206	2292	161
45°	176	954	1844	2113	2208	137
55°	126	606	1565	1818	1868	115
65°	100	322	1162	1307	1325	99
75°	74	198	638	701	704	77
85°	26	61	158	174	176	28
90°	16	46	125	62	62	15
95°	158	618	2056	1060	721	175
105°	565	856	3469	5267	4914	599
115°	1004	1219	2779	5543	6327	992
125°	1397	1566	2528	4271	5039	1240
135°	1665	1832	2449	3448	3910	1288
145°	1931	2054	2417	2942	3172	1210
155°	2182	2243	2417	2654	2731	1003
165°	2355	2386	2417	2513	2544	665
175°	2449	2449	2434	2465	2465	232
180°	2449	2449	2449	2449	2449	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5	819.5
2.5°	819.5	819.5	824.7	827.4	832.6	835.3	840.5	845.8	861.6	864.2	869.5
5°	798.4	808.9	843.2	856.3	893.2	943.3	964.4	998.7	1069.9	1090.9	1104.1
7.5°	766.8	790.5	874.8	895.9	988.1	1119.9	1175.3	1249.0	1362.3	1417.7	1462.5
10°	716.7	766.8	916.9	967.0	1117.3	1317.5	1420.3	1523.1	1694.3	1770.7	1799.7
12.5°	661.4	743.0	961.7	1030.3	1246.4	1538.9	1662.7	1776.0	1971.0	2073.8	2089.6
15°	598.1	708.8	1004.0	1104.1	1383.4	1723.3	1860.3	2000.0	2181.8	2255.6	2274.0
17.5°	542.8	682.4	1043.5	1148.9	1488.8	1889.3	2029.0	2144.9	2292.5	2342.5	2355.7
20°	474.3	640.3	1069.9	1206.9	1599.5	2010.5	2144.9	2234.5	2334.6	2366.2	2371.5
22.5°	424.2	595.5	1085.7	1228.0	1673.3	2084.3	2197.6	2268.7	2337.2	2347.8	2350.4
25°	382.1	545.4	1083.0	1251.7	1736.5	2129.1	2216.0	2268.7	2308.3	2313.5	2313.5
27.5°	342.5	490.1	1072.5	1256.9	1783.9	2139.6	2208.1	2245.0	2263.5	2274.0	2274.0
30°	308.3	437.4	1046.1	1246.4	1805.0	2129.1	2184.4	2202.9	2221.3	2237.1	2245.0
32.5°	281.9	387.3	1006.6	1225.3	1807.6	2102.7	2142.3	2152.8	2179.2	2216.0	2229.2
35°	258.2	337.3	961.7	1196.3	1791.8	2060.6	2086.9	2097.5	2150.2	2205.5	2223.9
37.5°	234.5	300.4	903.8	1146.3	1768.1	2010.5	2029.0	2047.4	2129.1	2195.0	2216.0
40°	210.8	268.8	835.3	1090.9	1731.2	1949.9	1965.7	1994.7	2102.7	2179.2	2200.2
42.5°	192.3	242.4	761.5	1033.0	1683.8	1881.4	1905.1	1947.3	2071.1	2152.8	2176.5
45°	176.5	216.1	682.4	953.8	1623.2	1810.3	1844.5	1902.5	2034.2	2113.3	2134.4
47.5°	160.7	197.6	600.8	872.2	1557.3	1739.1	1783.9	1849.8	1984.2	2060.6	2079.0
50°	147.6	179.2	519.1	785.2	1486.2	1662.7	1715.4	1783.9	1920.9	1992.1	2015.8
52.5°	137.0	163.4	442.7	698.2	1404.5	1583.7	1644.3	1715.4	1844.5	1913.0	1928.8
55°	126.5	150.2	376.8	606.0	1320.2	1499.3	1565.2	1633.7	1760.2	1818.2	1828.7
57.5°	121.2	139.6	321.5	519.1	1230.6	1404.5	1478.3	1541.5	1660.1	1704.9	1715.4
60°	113.3	131.7	279.3	445.3	1133.1	1314.9	1378.1	1441.4	1541.5	1578.4	1586.3
62.5°	105.4	126.5	247.7	374.2	1033.0	1209.5	1272.7	1330.7	1415.0	1441.4	1451.9
65°	100.1	121.2	224.0	321.5	930.1	1098.8	1162.1	1212.1	1280.7	1307.0	1312.3
67.5°	94.9	115.9	205.5	276.7	827.4	988.1	1035.6	1083.0	1135.7	1162.1	1164.7
70°	87.0	110.7	189.7	245.0	722.0	861.6	901.1	951.2	993.4	1006.6	1014.5
72.5°	81.7	102.8	179.2	221.3	613.9	740.4	777.3	806.3	843.2	856.3	856.3
75°	73.8	92.2	168.6	197.6	503.3	606.0	637.6	666.6	695.6	700.9	693.0
77.5°	65.9	81.7	144.9	166.0	392.6	479.6	505.9	521.7	545.4	550.7	553.3
80°	55.3	71.1	113.3	129.1	284.6	353.1	371.5	384.7	405.8	405.8	411.0
82.5°	42.2	55.3	81.7	92.2	192.3	242.4	258.2	266.1	279.3	279.3	279.3
85°	26.3	34.3	52.7	60.6	115.9	147.6	158.1	160.7	171.3	173.9	173.9
87.5°	13.2	18.4	34.3	36.9	60.6	76.4	76.4	81.7	81.7	79.0	76.4
90°	16.4	29.6	42.8	46.0	72.3	107.3	124.9	111.0	83.3	62.4	62.4
92.5°	65.7	177.4	289.2	317.2	445.9	617.5	703.3	616.4	442.6	312.2	299.9
95°	157.7	362.2	566.8	617.9	1097.3	1736.4	2055.9	1834.6	1392.0	1060.0	1022.4
97.5°	272.8	453.2	633.6	678.8	1478.0	2543.6	3076.4	2936.6	2656.9	2447.0	2375.5
100°	361.5	525.1	688.8	729.7	1616.6	2799.1	3390.3	3400.5	3421.0	3436.4	3351.1
102.5°	437.1	589.8	742.4	780.6	1680.1	2879.4	3479.1	3657.3	4013.7	4281.1	4208.0
105°	565.4	694.6	823.9	856.3	1727.3	2888.6	3469.2	3868.7	4667.8	5267.1	5227.8
107.5°	696.8	817.3	937.8	968.0	1736.0	2760.0	3272.0	3829.3	4943.9	5779.8	5789.3
110°	785.6	894.4	1003.2	1030.4	1722.9	2646.1	3107.7	3730.8	4976.8	5911.3	5952.2

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	872.7	976.4	1080.1	1106.0	1723.4	2546.5	2958.1	3595.8	4871.1	5827.5	5890.3
115°	1004.2	1099.8	1195.5	1219.4	1739.3	2432.5	2779.0	3393.3	4621.8	5543.2	5630.3
117.5°	1134.0	1220.8	1307.8	1329.5	1771.5	2361.0	2655.7	3210.1	4318.9	5150.4	5247.1
120°	1209.5	1291.4	1373.1	1393.6	1797.9	2336.9	2606.4	3113.0	4126.0	4885.8	4979.7
122.5°	1283.5	1366.0	1448.6	1469.2	1835.7	2324.3	2568.7	3024.8	3937.1	4621.3	4713.8
125°	1396.9	1472.1	1547.4	1566.2	1886.7	2314.0	2527.6	2915.1	3690.0	4271.2	4356.5
127.5°	1488.9	1564.9	1640.8	1659.8	1937.5	2307.9	2493.1	2825.8	3491.2	3990.2	4062.1
130°	1538.3	1620.0	1701.8	1722.3	1974.8	2311.5	2479.9	2776.0	3368.5	3812.7	3879.2
132.5°	1589.2	1671.0	1752.7	1773.2	2004.9	2313.9	2468.4	2733.5	3263.9	3661.5	3721.1
135°	1664.7	1739.2	1813.8	1832.4	2037.8	2311.8	2448.7	2670.7	3114.8	3447.9	3499.2
137.5°	1742.0	1815.8	1889.6	1908.0	2087.1	2325.9	2445.4	2633.1	3008.5	3290.1	3332.1
140°	1806.1	1874.0	1942.0	1959.0	2117.2	2328.3	2433.9	2596.0	2920.4	3163.6	3202.8
142.5°	1855.4	1918.2	1981.0	1996.7	2142.4	2336.7	2433.9	2576.3	2861.2	3074.8	3108.7
145°	1931.0	1985.8	2040.6	2054.3	2175.3	2336.7	2417.4	2533.9	2766.9	2941.7	2967.3
147.5°	2006.6	2059.9	2113.2	2126.5	2223.5	2352.8	2417.4	2509.1	2692.4	2830.0	2851.1
150°	2055.9	2104.1	2152.4	2164.4	2248.7	2361.2	2417.4	2494.9	2649.7	2765.9	2783.0
152.5°	2106.9	2143.4	2179.9	2189.0	2265.1	2366.7	2417.4	2483.6	2615.8	2714.9	2727.9
155°	2182.5	2209.5	2236.5	2243.3	2301.3	2378.7	2417.4	2470.0	2575.3	2654.1	2662.7
157.5°	2238.4	2264.6	2290.9	2297.5	2337.4	2390.7	2417.4	2458.4	2540.1	2601.5	2607.6
160°	2276.1	2296.6	2317.0	2322.1	2353.9	2396.3	2417.4	2452.5	2522.6	2575.2	2578.7
162.5°	2313.9	2329.3	2344.5	2348.4	2371.4	2402.1	2417.4	2447.0	2506.2	2550.6	2553.8
165°	2355.0	2368.9	2382.7	2386.3	2396.6	2410.5	2417.4	2438.6	2480.9	2512.7	2516.2
167.5°	2392.8	2399.4	2405.9	2407.6	2416.4	2428.1	2433.9	2447.7	2475.5	2496.3	2497.8
170°	2417.4	2424.0	2430.6	2432.3	2432.8	2433.5	2433.9	2447.7	2475.5	2496.3	2496.3
172.5°	2430.6	2432.0	2433.5	2433.9	2433.9	2433.9	2433.9	2444.8	2466.8	2483.2	2481.9
175°	2448.7	2448.7	2448.7	2448.7	2443.8	2437.2	2433.9	2440.8	2454.7	2465.1	2465.1
177.5°	2448.7	2448.7	2448.7	2448.7	2444.8	2439.7	2437.2	2442.6	2453.6	2461.8	2460.3
180°	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7	2448.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	819.5	819.5
2.5°	874.8	869.5
5°	1125.2	1130.5
7.5°	1515.2	1512.5
10°	1884.0	1907.8
12.5°	2152.8	2158.1
15°	2316.2	2326.7
17.5°	2379.4	2382.0
20°	2382.0	2376.8
22.5°	2353.1	2347.8
25°	2318.8	2316.2
27.5°	2287.2	2289.8
30°	2274.0	2281.9
32.5°	2274.0	2287.2
35°	2279.3	2292.5
37.5°	2276.6	2292.5
40°	2266.1	2284.5
42.5°	2237.1	2250.3
45°	2192.3	2208.1
47.5°	2134.4	2144.9
50°	2060.6	2071.1
52.5°	1968.4	1971.0
55°	1857.7	1868.2
57.5°	1739.1	1741.8
60°	1607.4	1615.3
62.5°	1467.7	1467.7
65°	1320.2	1325.4
67.5°	1167.3	1180.5
70°	1011.9	1014.5
72.5°	859.0	859.0
75°	700.9	703.5
77.5°	550.7	550.7
80°	408.4	411.0
82.5°	281.9	287.2
85°	176.5	176.5
87.5°	81.7	73.8
90°	62.4	62.4
92.5°	250.1	200.5
95°	871.9	721.4
97.5°	2089.1	1802.8
100°	3010.0	2668.9
102.5°	3915.9	3623.7
105°	5070.9	4913.8
107.5°	5827.4	5865.3
110°	6115.9	6279.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6141.6	6392.9
115°	5978.7	6327.1
117.5°	5633.4	6019.8
120°	5355.1	5730.6
122.5°	5084.2	5454.5
125°	4697.6	5038.7
127.5°	4350.0	4637.7
130°	4145.1	4410.9
132.5°	3959.1	4197.2
135°	3704.4	3909.7
137.5°	3500.1	3668.0
140°	3359.9	3516.9
142.5°	3243.7	3378.8
145°	3069.6	3171.8
147.5°	2935.9	3020.6
150°	2851.7	2920.4
152.5°	2779.7	2831.6
155°	2697.0	2731.3
157.5°	2631.7	2655.7
160°	2592.6	2606.4
162.5°	2567.0	2580.2
165°	2530.1	2544.0
167.5°	2503.6	2509.5
170°	2496.3	2496.3
172.5°	2476.8	2471.7
175°	2465.1	2465.1
177.5°	2454.5	2448.7
180°	2448.7	2448.7

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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	1.85	2.57	2.97	3.68	5.23	15.04	15.76	16.16	16.87	18.42
	3H	2.55	3.19	3.67	4.31	5.87	16.88	17.52	18.00	18.64	20.20
	4H	2.84	3.45	3.97	4.57	6.14	17.52	18.13	18.65	19.25	20.82
	6H	3.08	3.64	4.22	4.77	6.35	17.95	18.51	19.09	19.63	21.21
	8H	3.14	3.68	4.29	4.82	6.39	18.07	18.60	19.21	19.74	21.31
	12H	3.16	3.66	4.31	4.80	6.39	18.13	18.64	19.28	19.77	21.37
4H	2H	9.06	9.67	10.20	10.79	12.36	15.30	15.91	16.44	17.03	18.60
	3H	10.61	11.12	11.76	12.27	13.85	17.34	17.85	18.48	19.00	20.58
	4H	10.70	11.17	11.85	12.31	13.91	18.10	18.57	19.25	19.71	21.31
	6H	10.70	11.10	11.86	12.26	13.85	18.64	19.04	19.79	20.20	21.79
	8H	10.67	11.05	11.83	12.20	13.81	18.80	19.17	19.95	20.33	21.93
	12H	10.62	10.96	11.80	12.13	13.74	18.89	19.23	20.06	20.39	22.00
8H	4H	12.13	12.51	13.29	13.66	15.27	18.15	18.52	19.30	19.68	21.28
	6H	12.37	12.68	13.55	13.87	15.48	18.77	19.09	19.95	20.28	21.88
	8H	12.39	12.66	13.57	13.83	15.45	19.00	19.27	20.18	20.44	22.06
	12H	12.35	12.59	13.53	13.76	15.41	19.14	19.37	20.32	20.54	22.20
12H	4H	12.27	12.61	13.44	13.78	15.39	18.09	18.44	19.27	19.60	21.21
	6H	12.63	12.90	13.81	14.07	15.70	18.76	19.03	19.94	20.20	21.82
	8H	12.69	12.93	13.88	14.10	15.75	18.98	19.22	20.17	20.39	22.05