

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: P938269

Luminaire Tested: SQ4-FB-150U-050D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938269
REPORT IS A COMBINATION OF REPORTS P933621 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-935-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

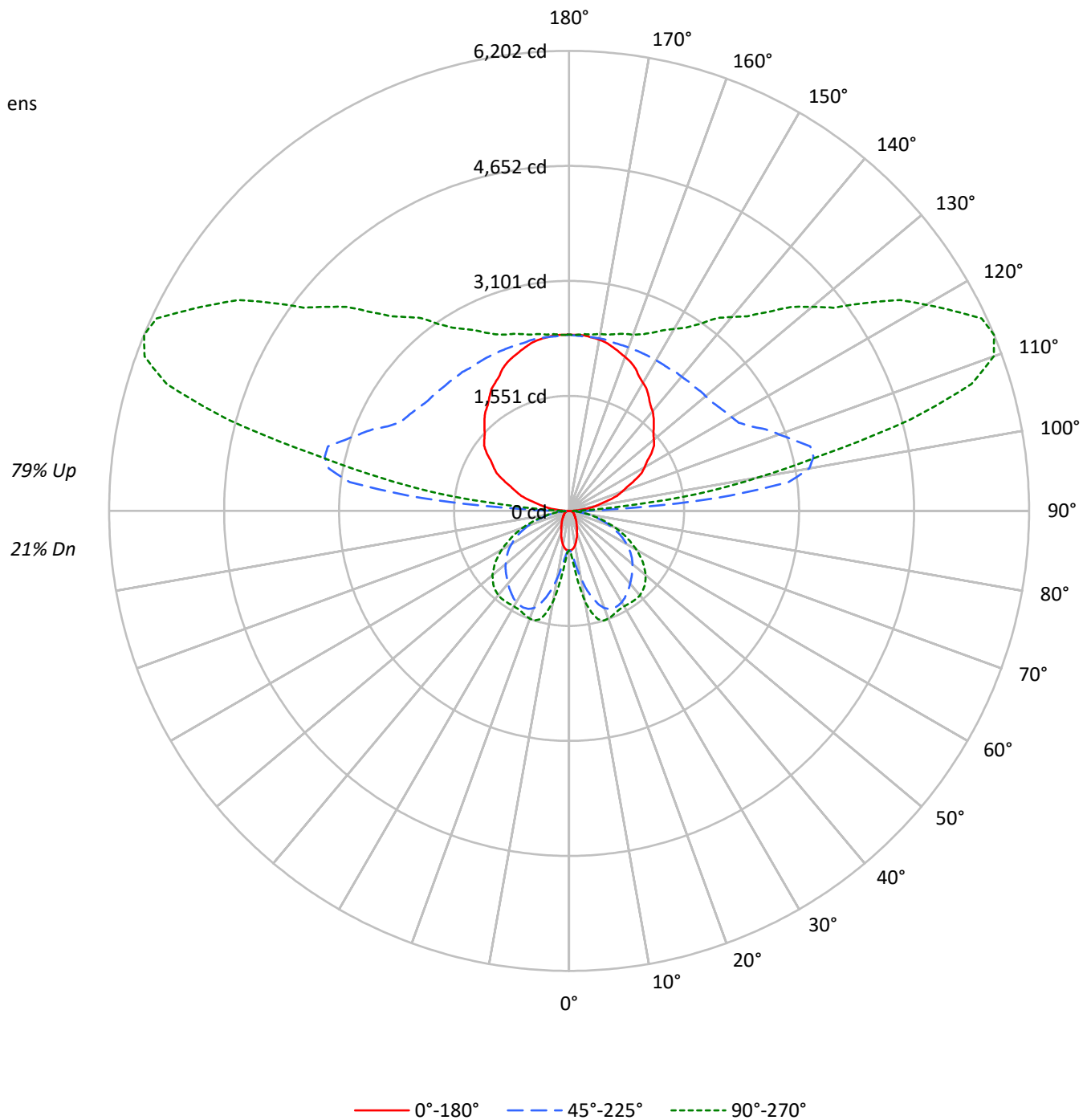
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19532.0 lumens
Efficiency: N/A
Efficacy: 117.1 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): 166.8
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1649	1649	1649
5°	1612	1906	2216
10°	1462	2780	3675
15°	1244	3633	4437
20°	1013	4211	4523
25°	845	4407	4430
30°	713	4436	4422
35°	631	4364	4536
40°	550	4269	4655
45°	498	4200	4673
50°	457	4139	4595
55°	439	4048	4392
60°	449	3872	4070
65°	469	3604	3628
70°	500	3145	3065
75°	556	2566	2392
80°	612	1782	1612
85°	554	947	824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 5902 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	0.4
10°-20°	305.7	1.6
20°-30°	534.7	2.7
30°-40°	688.3	3.5
40°-50°	768.8	3.9
50°-60°	736.3	3.8
60°-70°	583.5	3.0
70°-80°	343.1	1.8
80°-90°	104.4	0.5
90°-100°	1157.9	5.9
100°-110°	3044.1	15.6
110°-120°	3156.4	16.2
120°-130°	2531.8	13.0
130°-140°	1986.6	10.2
140°-150°	1524.8	7.8
150°-160°	1098.1	5.6
160°-170°	671.9	3.4
170°-180°	227.0	1.2
0°-30°	909.3	4.7
0°-40°	1597.5	8.2
0°-60°	3102.6	15.9
0°-90°	4133.6	21.2
90°-120°	7358.3	37.7
90°-150°	13401.5	68.6
90°-180°	15398.0	78.8
0°-180°	19532.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	533	533	533	533	533	
5°	520	557	627	710	735	48
15°	389	718	1210	1468	1514	108
25°	249	814	1442	1505	1507	115
35°	168	778	1358	1435	1492	105
45°	115	621	1200	1375	1437	89
55°	82	394	1018	1183	1216	75
65°	65	209	756	850	862	65
75°	48	129	415	456	458	50
85°	17	39	103	113	115	18
90°	16	45	121	61	61	14
95°	153	599	1994	1028	700	170
105°	548	831	3365	5109	4767	581
115°	974	1183	2696	5377	6138	962
125°	1355	1519	2452	4143	4888	1203
135°	1615	1778	2375	3345	3793	1249
145°	1873	1993	2345	2854	3077	1174
155°	2117	2176	2345	2575	2650	973
165°	2284	2315	2345	2438	2468	645
175°	2375	2375	2361	2391	2391	225
180°	2375	2375	2375	2375	2375	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2
2.5°	533.2	533.2	536.6	538.3	541.7	543.4	546.9	550.3	560.6	562.3	565.7
5°	519.5	526.3	548.6	557.1	581.1	613.7	627.4	649.7	696.0	709.7	718.3
7.5°	498.8	514.3	569.1	582.9	642.9	728.6	764.6	812.6	886.3	922.3	951.4
10°	466.3	498.8	596.6	629.2	726.8	857.2	924.0	990.9	1102.3	1152.1	1170.9
12.5°	430.3	483.4	625.7	670.3	810.8	1001.2	1081.8	1155.5	1282.3	1349.2	1359.5
15°	389.2	461.2	653.1	718.3	900.1	1121.1	1210.4	1301.2	1419.5	1467.5	1479.5
17.5°	353.2	444.0	678.9	747.5	968.6	1229.2	1320.0	1395.5	1491.5	1524.1	1532.7
20°	308.6	416.6	696.0	785.2	1040.6	1308.1	1395.5	1453.8	1518.9	1539.5	1542.9
22.5°	276.0	387.4	706.3	798.9	1088.6	1356.0	1429.7	1476.1	1520.6	1527.5	1529.2
25°	248.6	354.9	704.6	814.3	1129.8	1385.2	1441.8	1476.1	1501.7	1505.2	1505.2
27.5°	222.9	318.9	697.7	817.7	1160.6	1392.1	1436.6	1460.6	1472.6	1479.5	1479.5
30°	200.6	284.6	680.6	810.8	1174.3	1385.2	1421.2	1433.2	1445.2	1455.5	1460.6
32.5°	183.4	252.0	654.8	797.1	1176.0	1368.1	1393.8	1400.6	1417.7	1441.8	1450.4
35°	168.0	219.5	625.7	778.3	1165.8	1340.6	1357.7	1364.6	1398.9	1434.9	1446.9
37.5°	152.6	195.4	588.1	745.8	1150.3	1308.1	1320.0	1332.0	1385.2	1428.0	1441.8
40°	137.2	174.8	543.4	709.7	1126.3	1268.6	1278.9	1297.8	1368.1	1417.7	1431.4
42.5°	125.2	157.7	495.4	672.1	1095.5	1224.1	1239.5	1266.9	1347.4	1400.6	1416.0
45°	114.8	140.6	444.0	620.6	1056.1	1177.7	1200.0	1237.8	1323.5	1374.9	1388.6
47.5°	104.5	128.6	390.9	567.4	1013.2	1131.5	1160.6	1203.4	1290.9	1340.6	1352.6
50°	96.0	116.6	337.7	510.9	966.8	1081.8	1116.0	1160.6	1249.8	1296.1	1311.5
52.5°	89.1	106.3	288.0	454.3	913.8	1030.3	1069.8	1116.0	1200.0	1244.6	1254.9
55°	82.3	97.7	245.1	394.3	858.9	975.5	1018.3	1062.9	1145.2	1182.9	1189.7
57.5°	78.9	90.8	209.2	337.7	800.6	913.8	961.7	1002.9	1080.0	1109.2	1116.0
60°	73.7	85.7	181.7	289.8	737.2	855.5	896.6	937.7	1002.9	1026.9	1032.0
62.5°	68.6	82.3	161.1	243.4	672.1	786.9	828.1	865.7	920.6	937.7	944.6
65°	65.2	78.9	145.7	209.2	605.2	714.9	756.1	788.6	833.2	850.3	853.7
67.5°	61.7	75.4	133.7	180.0	538.3	642.9	673.8	704.6	738.9	756.1	757.8
70°	56.6	72.0	123.5	159.4	469.7	560.6	586.3	618.9	646.3	654.8	660.0
72.5°	53.2	66.9	116.6	144.0	399.4	481.7	505.7	524.6	548.6	557.1	557.1
75°	48.0	60.0	109.7	128.6	327.4	394.3	414.8	433.8	452.6	456.0	450.9
77.5°	42.9	53.2	94.3	108.0	255.4	312.0	329.1	339.4	354.9	358.3	360.0
80°	36.0	46.3	73.7	84.0	185.1	229.7	241.7	250.3	264.0	264.0	267.4
82.5°	27.4	36.0	53.2	60.0	125.2	157.7	168.0	173.1	181.7	181.7	181.7
85°	17.1	22.3	34.3	39.4	75.4	96.0	102.8	104.5	111.4	113.1	113.1
87.5°	8.6	12.0	22.3	24.0	39.4	49.8	49.8	53.2	53.2	51.5	49.8
90°	15.9	28.7	41.5	44.6	70.1	104.1	121.2	107.7	80.8	60.6	60.6
92.5°	63.7	172.1	280.6	307.7	432.6	599.0	682.3	597.9	429.3	302.9	290.9
95°	153.0	351.4	549.8	599.4	1064.4	1684.4	1994.4	1779.7	1350.3	1028.3	991.8
97.5°	264.6	439.6	614.6	658.4	1433.7	2467.5	2984.3	2848.7	2577.3	2373.8	2304.3
100°	350.7	509.4	668.1	707.8	1568.2	2715.2	3288.8	3298.7	3318.5	3333.4	3250.7
102.5°	424.0	572.1	720.2	757.3	1629.8	2793.2	3374.9	3547.8	3893.6	4152.9	4082.0
105°	548.4	673.8	799.3	830.6	1675.5	2802.1	3365.3	3752.9	4528.0	5109.4	5071.3
107.5°	676.0	792.9	909.8	939.0	1684.0	2677.3	3174.0	3714.6	4795.8	5606.8	5616.0
110°	762.0	867.6	973.2	999.6	1671.3	2566.8	3014.6	3619.0	4827.8	5734.3	5774.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	846.5	947.2	1047.8	1072.9	1671.8	2470.3	2869.5	3488.1	4725.2	5653.0	5713.9
115°	974.1	1066.9	1159.7	1182.9	1687.2	2359.6	2695.8	3291.7	4483.4	5377.2	5461.7
117.5°	1100.0	1184.3	1268.6	1289.7	1718.5	2290.3	2576.2	3114.0	4189.5	4996.2	5089.9
120°	1173.3	1252.7	1332.0	1351.9	1744.0	2266.9	2528.4	3019.7	4002.4	4739.5	4830.6
122.5°	1245.0	1325.1	1405.2	1425.2	1780.8	2254.7	2491.8	2934.2	3819.2	4482.9	4572.7
125°	1355.1	1428.0	1501.1	1519.3	1830.2	2244.7	2451.9	2827.8	3579.5	4143.3	4226.0
127.5°	1444.3	1518.0	1591.7	1610.1	1879.5	2238.8	2418.4	2741.1	3386.6	3870.7	3940.5
130°	1492.2	1571.5	1650.8	1670.7	1915.6	2242.3	2405.6	2692.9	3267.6	3698.5	3763.0
132.5°	1541.6	1620.9	1700.3	1720.1	1944.9	2244.6	2394.5	2651.7	3166.1	3551.9	3609.7
135°	1614.9	1687.1	1759.5	1777.5	1976.8	2242.5	2375.4	2590.8	3021.5	3344.6	3394.4
137.5°	1689.9	1761.4	1833.0	1850.9	2024.6	2256.3	2372.1	2554.2	2918.4	3191.6	3232.3
140°	1752.1	1817.9	1883.9	1900.3	2053.8	2258.6	2361.0	2518.3	2832.9	3068.8	3106.9
142.5°	1799.8	1860.8	1921.7	1936.9	2078.3	2266.7	2361.0	2499.2	2775.5	2982.8	3015.6
145°	1873.2	1926.4	1979.5	1992.7	2110.1	2266.7	2345.0	2458.0	2684.1	2853.6	2878.4
147.5°	1946.5	1998.2	2049.9	2062.9	2156.9	2282.3	2345.0	2434.0	2611.8	2745.2	2765.8
150°	1994.4	2041.1	2087.9	2099.6	2181.4	2290.5	2345.0	2420.2	2570.4	2683.0	2699.6
152.5°	2043.8	2079.2	2114.6	2123.4	2197.3	2295.8	2345.0	2409.2	2537.4	2633.6	2646.2
155°	2117.1	2143.4	2169.5	2176.1	2232.4	2307.5	2345.0	2396.1	2498.1	2574.7	2583.0
157.5°	2171.3	2196.8	2222.3	2228.7	2267.4	2319.1	2345.0	2384.7	2464.1	2523.6	2529.5
160°	2208.0	2227.8	2247.7	2252.6	2283.4	2324.5	2345.0	2379.0	2447.0	2498.1	2501.5
162.5°	2244.6	2259.5	2274.3	2278.1	2300.4	2330.1	2345.0	2373.8	2431.2	2474.2	2477.4
165°	2284.5	2297.9	2311.4	2314.8	2324.9	2338.3	2345.0	2365.6	2406.6	2437.5	2440.9
167.5°	2321.2	2327.6	2333.9	2335.5	2344.0	2355.4	2361.0	2374.4	2401.4	2421.6	2423.0
170°	2345.0	2351.4	2357.8	2359.4	2360.0	2360.6	2361.0	2374.4	2401.4	2421.6	2421.6
172.5°	2357.8	2359.2	2360.6	2361.0	2361.0	2361.0	2361.0	2371.6	2392.9	2408.9	2407.6
175°	2375.4	2375.4	2375.4	2375.4	2370.6	2364.2	2361.0	2367.7	2381.2	2391.3	2391.3
177.5°	2375.4	2375.4	2375.4	2375.4	2371.6	2366.7	2364.2	2369.5	2380.1	2388.1	2386.6
180°	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4	2375.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	533.2	533.2
2.5°	569.1	565.7
5°	732.0	735.4
7.5°	985.8	984.1
10°	1225.8	1241.2
12.5°	1400.6	1404.0
15°	1506.9	1513.7
17.5°	1548.1	1549.8
20°	1549.8	1546.4
22.5°	1530.9	1527.5
25°	1508.6	1506.9
27.5°	1488.0	1489.8
30°	1479.5	1484.6
32.5°	1479.5	1488.0
35°	1482.9	1491.5
37.5°	1481.2	1491.5
40°	1474.3	1486.3
42.5°	1455.5	1464.1
45°	1426.3	1436.6
47.5°	1388.6	1395.5
50°	1340.6	1347.4
52.5°	1280.6	1282.3
55°	1208.6	1215.5
57.5°	1131.5	1133.2
60°	1045.7	1050.9
62.5°	954.9	954.9
65°	858.9	862.3
67.5°	759.5	768.0
70°	658.3	660.0
72.5°	558.9	558.9
75°	456.0	457.7
77.5°	358.3	358.3
80°	265.7	267.4
82.5°	183.4	186.8
85°	114.8	114.8
87.5°	53.2	48.0
90°	60.6	60.6
92.5°	242.6	194.5
95°	845.8	699.8
97.5°	2026.6	1748.8
100°	2919.9	2589.0
102.5°	3798.6	3515.2
105°	4919.0	4766.7
107.5°	5652.8	5689.7
110°	5932.7	6091.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5957.7	6201.5
115°	5799.6	6137.6
117.5°	5464.7	5839.5
120°	5194.7	5559.0
122.5°	4932.0	5291.2
125°	4556.9	4887.8
127.5°	4219.7	4498.8
130°	4020.9	4278.8
132.5°	3840.6	4071.5
135°	3593.5	3792.6
137.5°	3395.3	3558.2
140°	3259.2	3411.6
142.5°	3146.6	3277.6
145°	2977.7	3076.8
147.5°	2848.0	2930.1
150°	2766.3	2832.9
152.5°	2696.5	2746.8
155°	2616.2	2649.5
157.5°	2552.8	2576.2
160°	2514.9	2528.4
162.5°	2490.1	2502.9
165°	2454.4	2467.8
167.5°	2428.6	2434.3
170°	2421.6	2421.6
172.5°	2402.6	2397.7
175°	2391.3	2391.3
177.5°	2381.0	2375.4
180°	2375.4	2375.4



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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	0.00	0.34	0.99	2.62	12.36	13.03	13.53	14.18	15.81
	3H	0.00	0.46	1.04	1.62	3.26	14.19	14.79	15.37	15.95	17.60
	4H	0.15	0.72	1.33	1.88	3.53	14.83	15.40	16.02	16.56	18.21
	6H	0.39	0.91	1.58	2.08	3.74	15.26	15.78	16.45	16.94	18.60
	8H	0.45	0.95	1.65	2.13	3.78	15.38	15.87	16.57	17.05	18.70
	12H	0.46	0.93	1.66	2.11	3.78	15.44	15.91	16.63	17.08	18.76
4H	2H	6.37	6.94	7.56	8.10	9.75	12.61	13.18	13.80	14.34	15.99
	3H	7.92	8.39	9.11	9.58	11.24	14.65	15.12	15.84	16.31	17.97
	4H	8.01	8.44	9.20	9.62	11.30	15.41	15.84	16.60	17.02	18.70
	6H	8.00	8.38	9.20	9.58	11.24	15.94	16.31	17.14	17.51	19.18
	8H	7.98	8.32	9.17	9.51	11.20	16.10	16.45	17.30	17.64	19.32
	12H	7.92	8.24	9.14	9.44	11.13	16.18	16.50	17.40	17.70	19.39
8H	4H	9.44	9.79	10.64	10.97	12.66	15.45	15.80	16.65	16.99	18.67
	6H	9.67	9.96	10.89	11.19	12.87	16.07	16.36	17.29	17.59	19.27
	8H	9.68	9.93	10.91	11.14	12.84	16.29	16.54	17.52	17.75	19.45
	12H	9.64	9.86	10.87	11.07	12.80	16.43	16.65	17.66	17.86	19.59
12H	4H	9.57	9.89	10.79	11.09	12.78	15.39	15.71	16.61	16.91	18.60
	6H	9.93	10.18	11.15	11.38	13.09	16.06	16.31	17.28	17.51	19.21
	8H	9.99	10.21	11.21	11.41	13.14	16.28	16.50	17.50	17.70	19.43