

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: P938228

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938228
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-92765-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

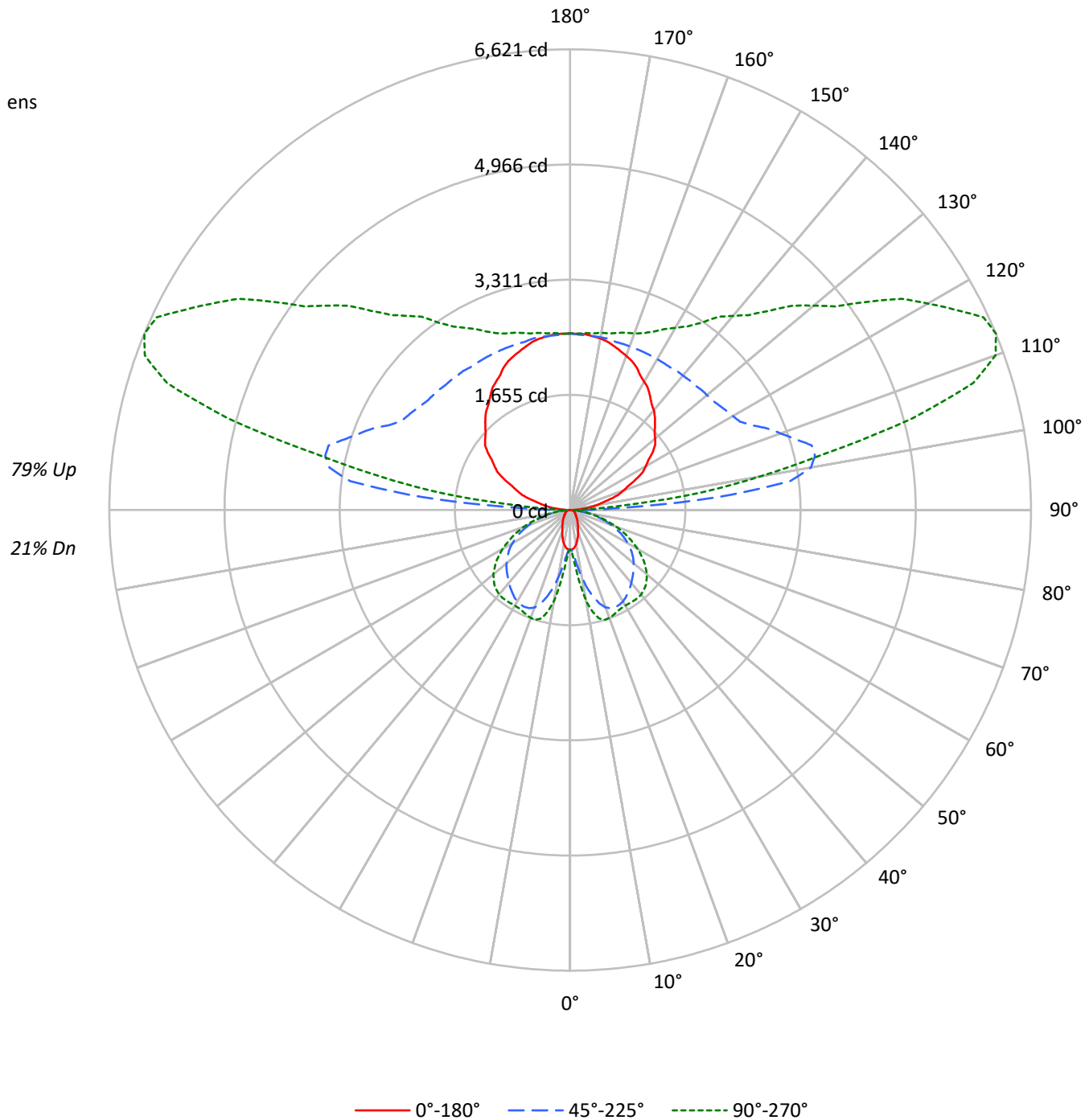
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20853.4 lumens
Efficiency: N/A
Efficacy: 125.0 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 (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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CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-4000K

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	0
RW	70	50	30	10	70	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	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1761	1761	1761
5°	1721	2035	2367
10°	1561	2968	3924
15°	1328	3878	4738
20°	1081	4496	4828
25°	902	4705	4730
30°	761	4737	4721
35°	673	4659	4843
40°	587	4558	4970
45°	532	4484	4989
50°	488	4418	4906
55°	468	4322	4689
60°	480	4134	4345
65°	500	3847	3873
70°	534	3358	3273
75°	593	2740	2554
80°	655	1903	1721
85°	593	1011	881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6310 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	0.4
10°-20°	326.3	1.6
20°-30°	570.8	2.7
30°-40°	734.8	3.5
40°-50°	820.8	3.9
50°-60°	786.1	3.8
60°-70°	623.0	3.0
70°-80°	366.3	1.8
80°-90°	111.5	0.5
90°-100°	1236.2	5.9
100°-110°	3250.0	15.6
110°-120°	3369.9	16.2
120°-130°	2703.1	13.0
130°-140°	2121.0	10.2
140°-150°	1627.9	7.8
150°-160°	1172.4	5.6
160°-170°	717.3	3.4
170°-180°	242.3	1.2
0°-30°	970.8	4.7
0°-40°	1705.6	8.2
0°-60°	3312.5	15.9
0°-90°	4413.2	21.2
90°-120°	7856.1	37.7
90°-150°	14308.1	68.6
90°-180°	16440.0	78.8
0°-180°	20853.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	555	595	670	758	785	51
15°	416	767	1292	1567	1616	116
25°	265	869	1539	1607	1609	122
35°	179	831	1450	1532	1592	112
45°	123	663	1281	1468	1534	95
55°	88	421	1087	1263	1298	80
65°	70	223	807	908	921	69
75°	51	137	443	487	489	54
85°	18	42	110	121	123	19
90°	17	48	129	65	65	15
95°	163	640	2129	1098	747	181
105°	586	887	3593	5455	5089	621
115°	1040	1263	2878	5741	6553	1027
125°	1447	1622	2618	4424	5218	1284
135°	1724	1898	2536	3571	4049	1334
145°	2000	2128	2504	3047	3285	1253
155°	2260	2323	2504	2749	2829	1039
165°	2439	2471	2504	2602	2635	688
175°	2536	2536	2521	2553	2553	241
180°	2536	2536	2536	2536	2536	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3	569.3
2.5°	569.3	569.3	572.9	574.7	578.3	580.2	583.9	587.5	598.5	600.4	604.0
5°	554.6	561.9	585.7	594.8	620.5	655.2	669.9	693.7	743.1	757.7	766.9
7.5°	532.6	549.1	607.6	622.3	686.4	777.9	816.3	867.6	946.3	984.7	1015.8
10°	497.8	532.6	636.9	671.8	776.0	915.2	986.5	1057.9	1176.9	1230.0	1250.1
12.5°	459.4	516.1	668.0	715.6	865.7	1068.9	1155.0	1233.6	1369.1	1440.5	1451.4
15°	415.5	492.4	697.3	766.9	960.9	1197.0	1292.2	1389.2	1515.5	1566.8	1579.6
17.5°	377.0	474.0	724.8	798.0	1034.2	1312.3	1409.3	1489.9	1592.4	1627.2	1636.3
20°	329.5	444.8	743.1	838.3	1111.0	1396.6	1489.9	1552.1	1621.7	1643.6	1647.3
22.5°	294.7	413.6	754.1	853.0	1162.2	1447.8	1526.5	1575.9	1623.5	1630.8	1632.6
25°	265.4	378.9	752.3	869.4	1206.2	1478.9	1539.3	1575.9	1603.3	1607.1	1607.1
27.5°	238.0	340.5	744.9	873.1	1239.1	1486.3	1533.8	1559.4	1572.2	1579.6	1579.6
30°	214.1	303.8	726.6	865.7	1253.8	1478.9	1517.4	1530.2	1542.9	1553.9	1559.4
32.5°	195.8	269.1	699.1	851.1	1255.6	1460.6	1488.1	1495.4	1513.6	1539.3	1548.5
35°	179.4	234.3	668.0	831.0	1244.7	1431.3	1449.6	1457.0	1493.5	1532.0	1544.7
37.5°	162.9	208.7	627.8	796.2	1228.1	1396.6	1409.3	1422.1	1478.9	1524.6	1539.3
40°	146.5	186.7	580.2	757.7	1202.5	1354.4	1365.5	1385.6	1460.6	1513.6	1528.3
42.5°	133.6	168.4	529.0	717.5	1169.6	1306.9	1323.3	1352.6	1438.6	1495.4	1511.8
45°	122.6	150.1	474.0	662.6	1127.5	1257.4	1281.2	1321.5	1413.0	1467.9	1482.5
47.5°	111.6	137.3	417.3	605.8	1081.7	1208.0	1239.1	1284.9	1378.2	1431.3	1444.1
50°	102.5	124.4	360.6	545.4	1032.3	1155.0	1191.5	1239.1	1334.3	1383.7	1400.2
52.5°	95.1	113.5	307.5	485.0	975.6	1100.0	1142.1	1191.5	1281.2	1328.8	1339.8
55°	87.9	104.3	261.7	421.0	917.0	1041.4	1087.2	1134.8	1222.6	1262.9	1270.2
57.5°	84.2	97.0	223.3	360.6	854.8	975.6	1026.8	1070.7	1153.1	1184.3	1191.5
60°	78.7	91.5	194.0	309.4	787.0	913.4	957.3	1001.1	1070.7	1096.4	1101.8
62.5°	73.2	87.9	172.0	259.9	717.5	840.1	884.1	924.3	982.9	1001.1	1008.5
65°	69.6	84.2	155.5	223.3	646.1	763.3	807.2	842.0	889.5	907.8	911.5
67.5°	65.9	80.5	142.7	192.2	574.7	686.4	719.3	752.3	788.8	807.2	809.0
70°	60.4	76.9	131.8	170.2	501.5	598.5	626.0	660.8	690.1	699.1	704.7
72.5°	56.8	71.4	124.4	153.7	426.4	514.3	540.0	560.1	585.7	594.8	594.8
75°	51.2	64.0	117.2	137.3	349.6	421.0	442.9	463.1	483.2	486.8	481.4
77.5°	45.8	56.8	100.7	115.3	272.7	333.1	351.4	362.4	378.9	382.5	384.3
80°	38.5	49.4	78.7	89.7	197.7	245.2	258.1	267.3	281.9	281.9	285.5
82.5°	29.3	38.5	56.8	64.0	133.6	168.4	179.4	184.8	194.0	194.0	194.0
85°	18.3	23.8	36.6	42.1	80.5	102.5	109.8	111.6	119.0	120.8	120.8
87.5°	9.2	12.8	23.8	25.7	42.1	53.1	53.1	56.8	56.8	54.9	53.1
90°	17.0	30.7	44.3	47.7	74.9	111.2	129.4	115.0	86.2	64.7	64.7
92.5°	68.0	183.7	299.5	328.5	461.8	639.6	728.4	638.4	458.4	323.4	310.6
95°	163.4	375.1	587.0	639.9	1136.4	1798.4	2129.3	1900.0	1441.7	1097.8	1058.9
97.5°	282.5	469.4	656.2	703.0	1530.7	2634.4	3186.2	3041.4	2751.7	2534.3	2460.2
100°	374.4	543.9	713.3	755.7	1674.3	2898.9	3511.3	3521.8	3543.0	3559.0	3470.6
102.5°	452.7	610.8	768.9	808.5	1740.0	2982.2	3603.3	3787.8	4157.0	4433.8	4358.2
105°	585.5	719.4	853.3	886.8	1788.9	2991.6	3593.0	4006.8	4834.4	5455.0	5414.3
107.5°	721.7	846.5	971.3	1002.5	1797.9	2858.4	3388.8	3965.9	5120.3	5986.0	5995.9
110°	813.6	926.3	1039.0	1067.2	1784.3	2740.5	3218.6	3863.9	5154.4	6122.2	6164.6



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CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	903.8	1011.2	1118.7	1145.5	1784.9	2637.4	3063.7	3724.1	5044.8	6035.4	6100.5
115°	1040.0	1139.0	1238.2	1262.9	1801.4	2519.2	2878.2	3514.4	4786.7	5741.0	5831.2
117.5°	1174.4	1264.4	1354.4	1376.9	1834.7	2445.2	2750.5	3324.6	4473.0	5334.2	5434.3
120°	1252.7	1337.4	1422.1	1443.3	1862.0	2420.3	2699.4	3224.0	4273.2	5060.1	5157.4
122.5°	1329.3	1414.8	1500.3	1521.6	1901.2	2407.3	2660.3	3132.7	4077.5	4786.1	4882.0
125°	1446.8	1524.6	1602.6	1622.1	1954.0	2396.5	2617.8	3019.1	3821.7	4423.6	4511.9
127.5°	1542.0	1620.7	1699.4	1719.0	2006.7	2390.3	2582.0	2926.6	3615.7	4132.6	4207.1
130°	1593.1	1677.8	1762.5	1783.7	2045.2	2394.0	2568.4	2875.1	3488.6	3948.7	4017.6
132.5°	1645.9	1730.6	1815.3	1836.5	2076.4	2396.4	2556.4	2831.1	3380.3	3792.2	3853.9
135°	1724.1	1801.3	1878.5	1897.8	2110.5	2394.3	2536.1	2766.0	3225.9	3570.9	3624.0
137.5°	1804.2	1880.6	1957.0	1976.1	2161.6	2408.9	2532.6	2727.0	3115.9	3407.5	3451.0
140°	1870.6	1940.9	2011.3	2028.9	2192.8	2411.4	2520.7	2688.6	3024.5	3276.4	3317.1
142.5°	1921.6	1986.6	2051.7	2068.0	2218.9	2420.1	2520.7	2668.2	2963.2	3184.5	3219.6
145°	1999.9	2056.7	2113.4	2127.5	2252.9	2420.1	2503.7	2624.3	2865.6	3046.6	3073.1
147.5°	2078.2	2133.4	2188.6	2202.4	2302.8	2436.7	2503.7	2598.7	2788.5	2930.9	2952.9
150°	2129.3	2179.2	2229.2	2241.6	2328.9	2445.5	2503.7	2583.9	2744.3	2864.5	2882.3
152.5°	2182.0	2219.9	2257.6	2267.1	2346.0	2451.1	2503.7	2572.2	2709.1	2811.8	2825.2
155°	2260.4	2288.4	2316.3	2323.3	2383.4	2463.6	2503.7	2558.2	2667.1	2748.8	2757.7
157.5°	2318.2	2345.4	2372.6	2379.4	2420.8	2476.0	2503.7	2546.1	2630.8	2694.3	2700.6
160°	2357.3	2378.5	2399.7	2405.0	2437.9	2481.8	2503.7	2540.0	2612.6	2667.1	2670.7
162.5°	2396.4	2412.4	2428.2	2432.2	2456.0	2487.8	2503.7	2534.3	2595.6	2641.6	2645.0
165°	2439.0	2453.4	2467.8	2471.4	2482.1	2496.5	2503.7	2525.6	2569.5	2602.4	2606.0
167.5°	2478.2	2485.0	2491.8	2493.5	2502.6	2514.7	2520.7	2535.1	2563.8	2585.4	2586.9
170°	2503.7	2510.5	2517.3	2519.1	2519.6	2520.3	2520.7	2535.1	2563.8	2585.4	2585.4
172.5°	2517.3	2518.8	2520.3	2520.7	2520.7	2520.7	2520.7	2532.1	2554.8	2571.8	2570.5
175°	2536.1	2536.1	2536.1	2536.1	2531.0	2524.2	2520.7	2527.9	2542.3	2553.1	2553.1
177.5°	2536.1	2536.1	2536.1	2536.1	2532.1	2526.8	2524.2	2529.8	2541.2	2549.6	2548.1
180°	2536.1	2536.1	2536.1	2536.1	2536.1	2536.1	2536.1	2536.1	2536.1	2536.1	2536.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	569.3	569.3
2.5°	607.6	604.0
5°	781.6	785.2
7.5°	1052.5	1050.6
10°	1308.7	1325.2
12.5°	1495.4	1499.0
15°	1608.9	1616.2
17.5°	1652.8	1654.6
20°	1654.6	1651.0
22.5°	1634.4	1630.8
25°	1610.7	1608.9
27.5°	1588.7	1590.6
30°	1579.6	1585.0
32.5°	1579.6	1588.7
35°	1583.2	1592.4
37.5°	1581.4	1592.4
40°	1574.0	1586.9
42.5°	1553.9	1563.1
45°	1522.8	1533.8
47.5°	1482.5	1489.9
50°	1431.3	1438.6
52.5°	1367.3	1369.1
55°	1290.4	1297.7
57.5°	1208.0	1209.8
60°	1116.5	1121.9
62.5°	1019.5	1019.5
65°	917.0	920.6
67.5°	810.9	819.9
70°	702.9	704.7
72.5°	596.7	596.7
75°	486.8	488.7
77.5°	382.5	382.5
80°	283.7	285.5
82.5°	195.8	199.5
85°	122.6	122.6
87.5°	56.8	51.2
90°	64.7	64.7
92.5°	259.1	207.7
95°	903.0	747.2
97.5°	2163.7	1867.1
100°	3117.4	2764.1
102.5°	4055.6	3753.0
105°	5251.8	5089.1
107.5°	6035.3	6074.6
110°	6334.1	6503.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6360.7	6621.0
115°	6192.0	6552.8
117.5°	5834.4	6234.6
120°	5546.1	5935.0
122.5°	5265.6	5649.1
125°	4865.2	5218.5
127.5°	4505.2	4803.2
130°	4292.9	4568.3
132.5°	4100.4	4347.0
135°	3836.6	4049.2
137.5°	3625.0	3798.9
140°	3479.7	3642.4
142.5°	3359.5	3499.4
145°	3179.1	3285.0
147.5°	3040.6	3128.3
150°	2953.4	3024.5
152.5°	2878.9	2932.6
155°	2793.2	2828.8
157.5°	2725.5	2750.5
160°	2685.1	2699.4
162.5°	2658.6	2672.2
165°	2620.4	2634.8
167.5°	2592.9	2599.0
170°	2585.4	2585.4
172.5°	2565.2	2559.9
175°	2553.1	2553.1
177.5°	2542.1	2536.1
180°	2536.1	2536.1



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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	0.07	0.57	1.22	2.85	12.59	13.26	13.76	14.41	16.04
	3H	0.09	0.69	1.26	1.85	3.49	14.42	15.02	15.60	16.18	17.82
	4H	0.38	0.95	1.56	2.11	3.76	15.06	15.63	16.24	16.79	18.44
	6H	0.62	1.14	1.81	2.30	3.96	15.49	16.01	16.68	17.17	18.83
	8H	0.68	1.18	1.87	2.36	4.01	15.60	16.10	16.79	17.28	18.93
	12H	0.69	1.16	1.89	2.33	4.01	15.67	16.14	16.86	17.31	18.98
4H	2H	6.60	7.17	7.79	8.33	9.98	12.84	13.41	14.03	14.57	16.22
	3H	8.15	8.62	9.34	9.81	11.47	14.87	15.35	16.07	16.53	18.19
	4H	8.23	8.67	9.43	9.84	11.52	15.64	16.07	16.83	17.25	18.92
	6H	8.23	8.61	9.43	9.80	11.47	16.17	16.54	17.37	17.74	19.40
	8H	8.20	8.55	9.40	9.74	11.43	16.33	16.68	17.52	17.86	19.55
	12H	8.15	8.47	9.36	9.67	11.35	16.41	16.73	17.63	17.93	19.62
8H	4H	9.66	10.01	10.86	11.20	12.89	15.68	16.03	16.88	17.22	18.90
	6H	9.90	10.18	11.11	11.42	13.10	16.30	16.59	17.52	17.82	19.50
	8H	9.91	10.16	11.13	11.37	13.07	16.52	16.77	17.74	17.98	19.68
	12H	9.87	10.09	11.10	11.30	13.03	16.66	16.88	17.89	18.09	19.82
12H	4H	9.80	10.12	11.01	11.31	13.00	15.62	15.94	16.83	17.14	18.83
	6H	10.15	10.41	11.38	11.61	13.31	16.28	16.53	17.50	17.74	19.44
	8H	10.21	10.43	11.44	11.64	13.37	16.51	16.73	17.73	17.93	19.66