

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: P938229

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938229
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-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

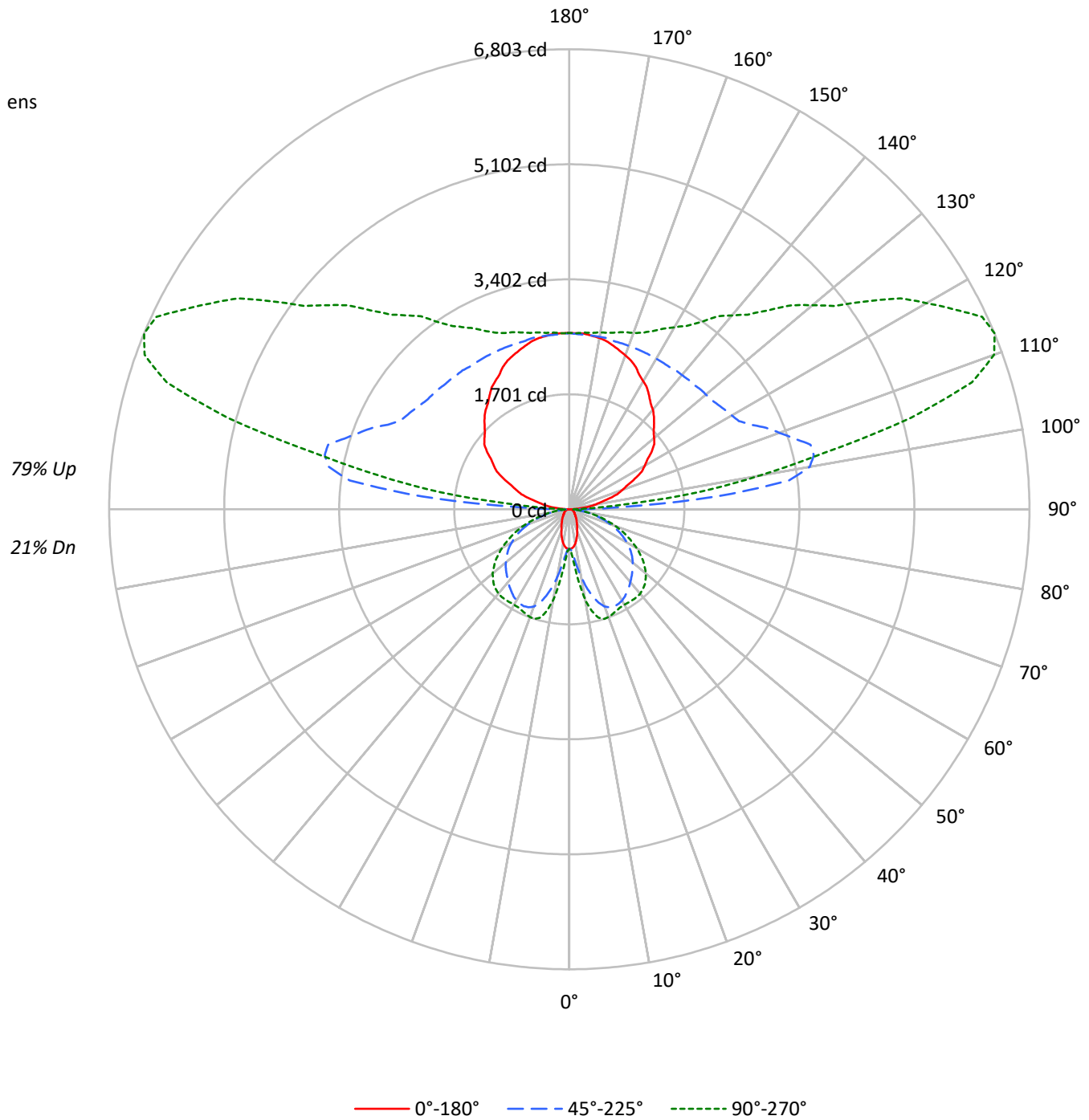
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21428.1 lumens
Efficiency: N/A
Efficacy: 128.5 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): 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-12-5000K

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°	1809	1809	1809
5°	1768	2091	2432
10°	1604	3050	4032
15°	1364	3985	4868
20°	1111	4620	4961
25°	927	4835	4861
30°	782	4867	4851
35°	692	4787	4977
40°	603	4684	5106
45°	547	4608	5127
50°	502	4540	5041
55°	481	4441	4818
60°	493	4248	4465
65°	514	3954	3980
70°	549	3450	3363
75°	610	2815	2624
80°	672	1955	1768
85°	609	1039	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6495 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.7	0.4
10°-20°	335.3	1.6
20°-30°	586.6	2.7
30°-40°	755.1	3.5
40°-50°	843.4	3.9
50°-60°	807.8	3.8
60°-70°	640.2	3.0
70°-80°	376.4	1.8
80°-90°	114.5	0.5
90°-100°	1270.3	5.9
100°-110°	3339.6	15.6
110°-120°	3462.8	16.2
120°-130°	2777.6	13.0
130°-140°	2179.4	10.2
140°-150°	1672.8	7.8
150°-160°	1204.7	5.6
160°-170°	737.1	3.4
170°-180°	249.0	1.2
0°-30°	997.6	4.7
0°-40°	1752.6	8.2
0°-60°	3403.8	15.9
0°-90°	4534.9	21.2
90°-120°	8072.7	37.7
90°-150°	14702.4	68.6
90°-180°	16893.0	78.8
0°-180°	21428.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	570	611	688	779	807	53
15°	427	788	1328	1610	1661	119
25°	273	893	1582	1651	1653	126
35°	184	854	1490	1574	1636	115
45°	126	681	1316	1508	1576	97
55°	90	433	1117	1298	1334	82
65°	72	230	830	933	946	71
75°	53	141	455	500	502	55
85°	19	43	113	124	126	20
90°	18	49	133	66	66	16
95°	168	658	2188	1128	768	186
105°	602	911	3692	5605	5229	638
115°	1069	1298	2958	5899	6733	1055
125°	1487	1667	2690	4546	5362	1320
135°	1772	1950	2606	3669	4161	1371
145°	2055	2186	2573	3131	3376	1287
155°	2323	2387	2573	2825	2907	1067
165°	2506	2540	2573	2674	2707	707
175°	2606	2606	2590	2623	2623	247
180°	2606	2606	2606	2606	2606	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9	584.9
2.5°	584.9	584.9	588.7	590.5	594.3	596.2	600.0	603.7	615.0	616.9	620.6
5°	569.9	577.4	601.9	611.2	637.6	673.3	688.3	712.8	763.6	778.6	788.1
7.5°	547.3	564.2	624.4	639.4	705.3	799.4	838.8	891.5	972.4	1011.8	1043.8
10°	511.6	547.3	654.5	690.3	797.4	940.4	1013.7	1087.1	1209.3	1263.9	1284.6
12.5°	472.0	530.4	686.4	735.3	889.6	1098.4	1186.8	1267.6	1406.8	1480.2	1491.4
15°	427.0	506.0	716.5	788.1	987.4	1230.0	1327.8	1427.5	1557.3	1609.9	1623.1
17.5°	387.4	487.1	744.8	820.0	1062.7	1348.5	1448.1	1531.0	1636.3	1672.0	1681.4
20°	338.6	457.1	763.6	861.4	1141.6	1435.1	1531.0	1594.9	1666.4	1688.9	1692.7
22.5°	302.8	425.0	774.9	876.5	1194.3	1487.7	1568.5	1619.4	1668.3	1675.7	1677.6
25°	272.7	389.3	773.0	893.4	1239.4	1519.6	1581.7	1619.4	1647.5	1651.3	1651.3
27.5°	244.5	349.9	765.4	897.1	1273.3	1527.2	1576.1	1602.4	1615.5	1623.1	1623.1
30°	220.0	312.2	746.6	889.6	1288.3	1519.6	1559.2	1572.4	1585.4	1596.8	1602.4
32.5°	201.2	276.5	718.4	874.5	1290.2	1500.9	1529.1	1536.6	1555.4	1581.7	1591.2
35°	184.3	240.8	686.4	853.9	1279.0	1470.8	1489.5	1497.1	1534.7	1574.2	1587.3
37.5°	167.4	214.4	645.1	818.1	1261.9	1435.1	1448.1	1461.3	1519.6	1566.7	1581.7
40°	150.5	191.8	596.2	778.6	1235.7	1391.8	1403.1	1423.7	1500.9	1555.4	1570.4
42.5°	137.3	173.0	543.5	737.3	1201.8	1342.9	1359.8	1389.9	1478.2	1536.6	1553.5
45°	126.0	154.2	487.1	680.8	1158.6	1292.0	1316.5	1357.9	1452.0	1508.3	1523.4
47.5°	114.7	141.0	428.8	622.5	1111.6	1241.3	1273.3	1320.3	1416.2	1470.8	1483.9
50°	105.3	127.9	370.5	560.4	1060.7	1186.8	1224.4	1273.3	1371.1	1421.9	1438.8
52.5°	97.8	116.7	315.9	498.4	1002.5	1130.3	1173.6	1224.4	1316.5	1365.4	1376.7
55°	90.3	107.2	268.9	432.6	942.3	1070.1	1117.2	1166.0	1256.3	1297.7	1305.2
57.5°	86.6	99.6	229.5	370.5	878.3	1002.5	1055.1	1100.2	1184.8	1216.9	1224.4
60°	80.9	94.0	199.4	317.9	808.7	938.5	983.7	1028.7	1100.2	1126.6	1132.2
62.5°	75.2	90.3	176.8	267.0	737.3	863.3	908.4	949.8	1009.9	1028.7	1036.3
65°	71.5	86.6	159.8	229.5	663.9	784.3	829.5	865.2	914.0	932.8	936.6
67.5°	67.7	82.7	146.7	197.5	590.5	705.3	739.2	773.0	810.6	829.5	831.3
70°	62.1	79.0	135.4	174.9	515.3	615.0	643.3	679.0	709.1	718.4	724.1
72.5°	58.3	73.4	127.9	158.0	438.2	528.5	554.8	575.5	601.9	611.2	611.2
75°	52.6	65.8	120.4	141.0	359.2	432.6	455.1	475.9	496.5	500.3	494.6
77.5°	47.0	58.3	103.5	118.5	280.2	342.3	361.1	372.4	389.3	393.0	394.9
80°	39.5	50.8	80.9	92.2	203.1	252.0	265.2	274.6	289.7	289.7	293.4
82.5°	30.1	39.5	58.3	65.8	137.3	173.0	184.3	189.9	199.4	199.4	199.4
85°	18.8	24.5	37.6	43.3	82.7	105.3	112.8	114.7	122.3	124.1	124.1
87.5°	9.4	13.2	24.5	26.4	43.3	54.6	54.6	58.3	58.3	56.5	54.6
90°	17.5	31.5	45.5	49.0	76.9	114.2	132.9	118.1	88.6	66.5	66.5
92.5°	69.9	188.8	307.8	337.5	474.6	657.2	748.5	656.0	471.0	332.3	319.1
95°	167.9	385.5	603.2	657.6	1167.7	1847.9	2188.0	1952.4	1481.4	1128.1	1088.1
97.5°	290.3	482.3	674.3	722.3	1572.9	2707.0	3274.0	3125.2	2827.5	2604.2	2528.0
100°	384.7	558.9	733.0	776.6	1720.4	2978.8	3608.1	3618.9	3640.7	3657.0	3566.3
102.5°	465.2	627.7	790.1	830.8	1788.0	3064.3	3702.6	3892.2	4271.5	4556.0	4478.3
105°	601.7	739.3	876.8	911.2	1838.2	3074.1	3692.0	4117.2	4967.6	5605.3	5563.6
107.5°	741.6	869.8	998.1	1030.1	1847.4	2937.2	3482.2	4075.2	5261.4	6151.0	6161.1
110°	836.0	951.8	1067.6	1096.6	1833.5	2816.0	3307.3	3970.4	5296.4	6290.9	6334.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	928.7	1039.1	1149.5	1177.1	1834.1	2710.1	3148.1	3826.7	5183.9	6201.8	6268.6
115°	1068.6	1170.4	1272.3	1297.7	1851.0	2588.7	2957.5	3611.2	4918.6	5899.2	5991.9
117.5°	1206.8	1299.2	1391.8	1414.9	1885.3	2512.6	2826.3	3416.3	4596.2	5481.2	5584.0
120°	1287.2	1374.3	1461.3	1483.1	1913.3	2487.0	2773.8	3312.9	4391.0	5199.6	5299.5
122.5°	1365.9	1453.7	1541.6	1563.6	1953.6	2473.6	2733.6	3219.0	4189.9	4918.0	5016.6
125°	1486.6	1566.7	1646.8	1666.8	2007.8	2462.6	2689.9	3102.3	3927.0	4545.5	4636.2
127.5°	1584.5	1665.4	1746.2	1766.4	2062.0	2456.1	2653.2	3007.2	3715.4	4246.5	4323.0
130°	1637.0	1724.1	1811.1	1832.9	2101.6	2460.0	2639.1	2954.3	3584.8	4057.6	4128.3
132.5°	1691.3	1778.3	1865.3	1887.1	2133.7	2462.5	2626.9	2909.1	3473.5	3896.7	3960.1
135°	1771.6	1850.9	1930.3	1950.1	2168.7	2460.2	2606.0	2842.3	3314.8	3669.3	3723.9
137.5°	1853.9	1932.4	2010.9	2030.6	2221.1	2475.3	2602.4	2802.2	3201.7	3501.4	3546.1
140°	1922.1	1994.4	2066.7	2084.8	2253.2	2477.8	2590.2	2762.7	3107.9	3366.7	3408.5
142.5°	1974.6	2041.4	2108.2	2125.0	2280.0	2486.8	2590.2	2741.8	3044.9	3272.3	3308.3
145°	2055.0	2113.4	2171.6	2186.2	2315.0	2486.8	2572.7	2696.6	2944.6	3130.6	3157.8
147.5°	2135.4	2192.2	2248.9	2263.1	2366.3	2503.9	2572.7	2670.3	2865.3	3011.7	3034.2
150°	2188.0	2239.3	2290.6	2303.4	2393.1	2512.9	2572.7	2655.1	2819.9	2943.5	2961.7
152.5°	2242.2	2281.1	2319.8	2329.6	2410.6	2518.7	2572.7	2643.1	2783.7	2889.3	2903.1
155°	2322.7	2351.4	2380.1	2387.3	2449.1	2531.5	2572.7	2628.7	2740.7	2824.6	2833.7
157.5°	2382.1	2410.0	2438.0	2445.0	2487.5	2544.3	2572.7	2616.2	2703.3	2768.6	2775.0
160°	2422.3	2444.1	2465.8	2471.3	2505.1	2550.2	2572.7	2610.0	2684.6	2740.6	2744.3
162.5°	2462.5	2478.8	2495.1	2499.2	2523.7	2556.3	2572.7	2604.2	2667.2	2714.4	2717.8
165°	2506.2	2521.0	2535.8	2539.5	2550.5	2565.3	2572.7	2595.2	2640.3	2674.1	2677.8
167.5°	2546.5	2553.5	2560.4	2562.2	2571.6	2584.0	2590.2	2604.9	2634.5	2656.6	2658.2
170°	2572.7	2579.7	2586.7	2588.5	2589.0	2589.8	2590.2	2604.9	2634.5	2656.6	2656.6
172.5°	2586.7	2588.2	2589.8	2590.2	2590.2	2590.2	2590.2	2601.8	2625.2	2642.7	2641.3
175°	2606.0	2606.0	2606.0	2606.0	2600.7	2593.7	2590.2	2597.5	2612.3	2623.4	2623.4
177.5°	2606.0	2606.0	2606.0	2606.0	2601.8	2596.4	2593.7	2599.5	2611.2	2619.9	2618.3
180°	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	584.9	584.9
2.5°	624.4	620.6
5°	803.1	806.8
7.5°	1081.5	1079.6
10°	1344.8	1361.7
12.5°	1536.6	1540.3
15°	1653.2	1660.7
17.5°	1698.4	1700.2
20°	1700.2	1696.5
22.5°	1679.5	1675.7
25°	1655.1	1653.2
27.5°	1632.5	1634.4
30°	1623.1	1628.7
32.5°	1623.1	1632.5
35°	1626.9	1636.3
37.5°	1625.0	1636.3
40°	1617.4	1630.6
42.5°	1596.8	1606.2
45°	1564.8	1576.1
47.5°	1523.4	1531.0
50°	1470.8	1478.2
52.5°	1405.0	1406.8
55°	1326.0	1333.5
57.5°	1241.3	1243.2
60°	1147.3	1152.9
62.5°	1047.6	1047.6
65°	942.3	946.0
67.5°	833.2	842.5
70°	722.2	724.1
72.5°	613.2	613.2
75°	500.3	502.1
77.5°	393.0	393.0
80°	291.5	293.4
82.5°	201.2	205.0
85°	126.0	126.0
87.5°	58.3	52.6
90°	66.5	66.5
92.5°	266.2	213.4
95°	927.9	767.8
97.5°	2223.3	1918.6
100°	3203.3	2840.3
102.5°	4167.4	3856.4
105°	5396.5	5229.4
107.5°	6201.6	6242.0
110°	6508.6	6682.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6536.0	6803.4
115°	6362.6	6733.4
117.5°	5995.2	6406.4
120°	5699.0	6098.6
122.5°	5410.7	5804.8
125°	4999.3	5362.3
127.5°	4629.3	4935.5
130°	4411.3	4694.2
132.5°	4213.4	4466.8
135°	3942.3	4160.8
137.5°	3724.9	3903.6
140°	3575.6	3742.7
142.5°	3452.1	3595.8
145°	3266.7	3375.5
147.5°	3124.4	3214.5
150°	3034.8	3107.9
152.5°	2958.3	3013.4
155°	2870.2	2906.7
157.5°	2800.7	2826.3
160°	2759.1	2773.8
162.5°	2731.9	2745.9
165°	2692.6	2707.4
167.5°	2664.4	2670.6
170°	2656.6	2656.6
172.5°	2635.9	2630.4
175°	2623.4	2623.4
177.5°	2612.1	2606.0
180°	2606.0	2606.0



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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	0.16	0.66	1.31	2.94	12.69	13.35	13.85	14.51	16.14
	3H	0.19	0.78	1.36	1.94	3.59	14.52	15.11	15.69	16.27	17.92
	4H	0.47	1.04	1.66	2.20	3.85	15.16	15.72	16.34	16.88	18.53
	6H	0.71	1.23	1.90	2.40	4.06	15.58	16.10	16.77	17.26	18.92
	8H	0.78	1.27	1.97	2.45	4.10	15.70	16.19	16.89	17.37	19.02
	12H	0.79	1.26	1.98	2.43	4.10	15.76	16.23	16.96	17.40	19.08
4H	2H	6.69	7.26	7.88	8.42	10.07	12.94	13.50	14.13	14.66	16.31
	3H	8.24	8.72	9.44	9.90	11.56	14.97	15.44	16.16	16.63	18.29
	4H	8.33	8.76	9.52	9.94	11.62	15.73	16.17	16.93	17.34	19.02
	6H	8.33	8.70	9.53	9.90	11.56	16.26	16.64	17.46	17.83	19.50
	8H	8.30	8.65	9.50	9.84	11.52	16.42	16.77	17.62	17.96	19.64
	12H	8.24	8.56	9.46	9.76	11.45	16.51	16.82	17.72	18.02	19.71
8H	4H	9.76	10.11	10.96	11.30	12.98	15.77	16.12	16.97	17.31	18.99
	6H	9.99	10.28	11.21	11.51	13.19	16.40	16.68	17.61	17.92	19.60
	8H	10.01	10.26	11.23	11.46	13.17	16.62	16.87	17.84	18.07	19.78
	12H	9.96	10.19	11.19	11.39	13.12	16.75	16.97	17.98	18.18	19.91
12H	4H	9.89	10.21	11.11	11.41	13.10	15.71	16.03	16.93	17.23	18.92
	6H	10.25	10.50	11.47	11.71	13.41	16.38	16.63	17.60	17.84	19.54
	8H	10.31	10.53	11.53	11.73	13.47	16.60	16.82	17.83	18.03	19.76