

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: P937745

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937745
REPORT IS A COMBINATION OF REPORTS P933584 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

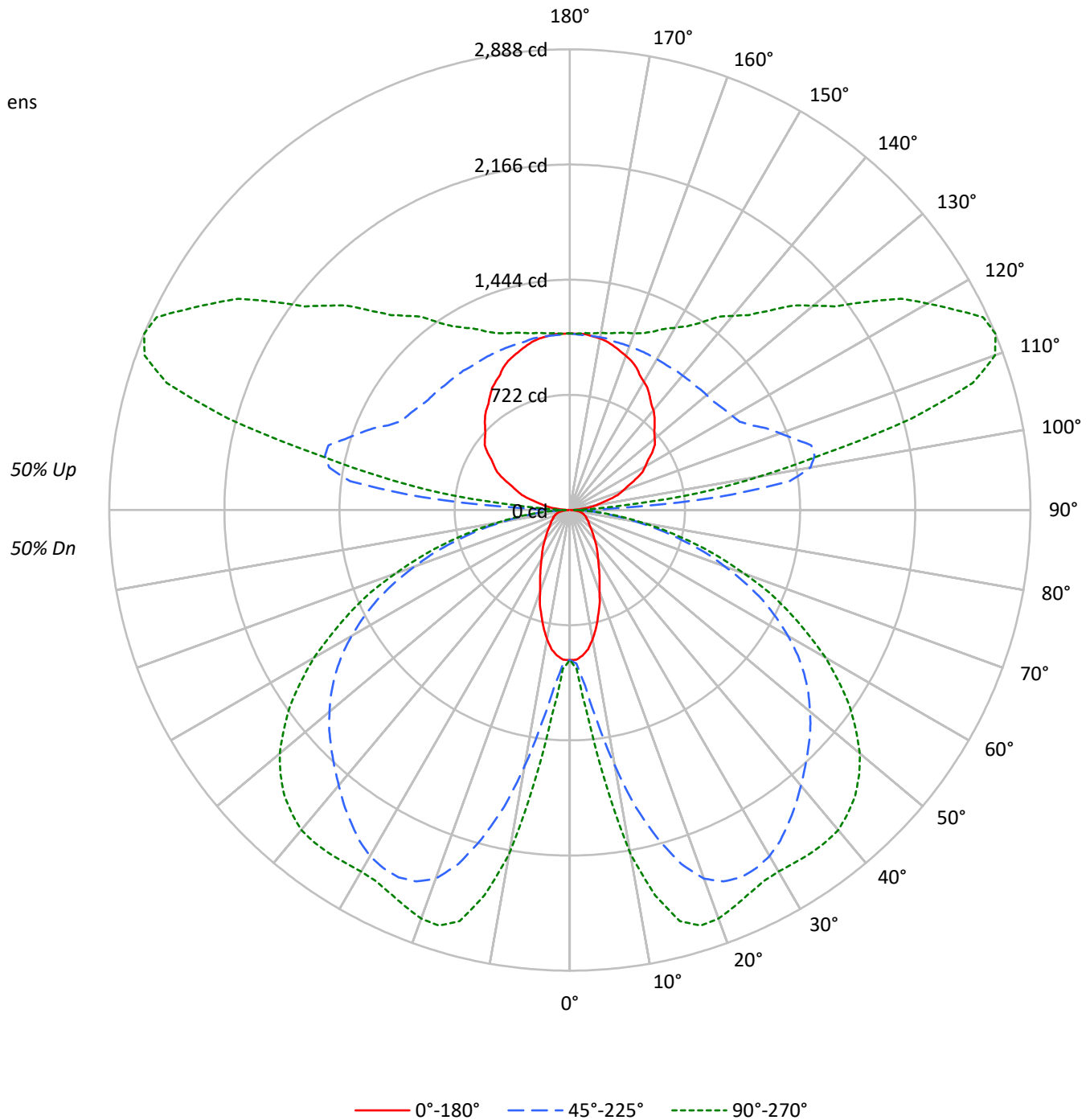
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14445.3 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 137.6
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4359	4359	4359
5°	4259	5039	5860
10°	3863	7344	9715
15°	3283	9595	11730
20°	2673	11120	11954
25°	2230	11636	11712
30°	1880	11709	11690
35°	1663	11515	11992
40°	1449	11263	12304
45°	1312	11077	12352
50°	1203	10911	12148
55°	1153	10667	11609
60°	1180	10198	10759
65°	1227	9486	9591
70°	1308	8273	8103
75°	1449	6745	6323
80°	1584	4678	4261
85°	1407	2482	2180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	0.8
10°-20°	538.7	3.7
20°-30°	942.2	6.5
30°-40°	1212.9	8.4
40°-50°	1354.8	9.4
50°-60°	1297.6	9.0
60°-70°	1028.3	7.1
70°-80°	604.7	4.2
80°-90°	172.2	1.2
90°-100°	539.3	3.7
100°-110°	1417.9	9.8
110°-120°	1470.2	10.2
120°-130°	1179.3	8.2
130°-140°	925.3	6.4
140°-150°	710.2	4.9
150°-160°	511.5	3.5
160°-170°	313.0	2.2
170°-180°	105.7	0.7
0°-30°	1602.4	11.1
0°-40°	2815.3	19.5
0°-60°	5467.6	37.9
0°-90°	7272.8	50.3
90°-120°	3427.5	23.7
90°-150°	6242.3	43.2
90°-180°	7172.0	49.6
0°-180°	14445.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	915	982	1106	1251	1296	84
15°	686	1266	2133	2586	2668	191
25°	438	1435	2541	2653	2656	202
35°	296	1372	2393	2529	2628	185
45°	202	1094	2115	2423	2532	157
55°	145	695	1795	2085	2142	132
65°	115	369	1332	1498	1520	114
75°	85	226	731	804	807	89
85°	30	69	181	199	202	32
90°	7	21	56	28	28	8
95°	71	279	929	479	326	79
105°	256	387	1568	2380	2220	271
115°	454	551	1256	2505	2859	448
125°	631	708	1142	1930	2277	560
135°	752	828	1106	1558	1767	582
145°	872	928	1092	1329	1433	547
155°	986	1014	1092	1199	1234	453
165°	1064	1078	1092	1135	1150	300
175°	1106	1106	1100	1114	1114	105
180°	1106	1106	1106	1106	1106	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6
2.5°	939.6	939.6	945.6	948.7	954.7	957.7	963.8	969.8	988.0	991.0	997.0
5°	915.4	927.5	966.8	981.9	1024.2	1081.6	1105.8	1145.1	1226.5	1250.7	1265.8
7.5°	879.1	906.4	1003.0	1027.2	1132.9	1284.0	1347.4	1432.0	1561.9	1625.4	1676.8
10°	821.7	879.1	1051.3	1108.7	1281.0	1510.6	1628.4	1746.2	1942.6	2030.3	2063.5
12.5°	758.3	852.0	1102.7	1181.3	1429.0	1764.4	1906.4	2036.2	2259.8	2377.7	2395.8
15°	685.8	812.7	1151.0	1265.8	1586.1	1975.8	2132.9	2293.1	2501.6	2586.1	2607.3
17.5°	622.3	782.5	1196.4	1317.2	1707.0	2166.2	2326.3	2459.3	2628.4	2685.8	2700.9
20°	543.8	734.2	1226.5	1383.7	1833.9	2305.2	2459.3	2561.9	2676.8	2713.0	2719.0
22.5°	486.4	682.8	1244.8	1407.8	1918.4	2389.7	2519.7	2601.2	2679.7	2691.9	2694.9
25°	438.1	625.4	1241.7	1435.1	1991.0	2441.1	2540.8	2601.2	2646.5	2652.6	2652.6
27.5°	392.8	561.9	1229.6	1441.1	2045.3	2453.2	2531.7	2574.0	2595.2	2607.3	2607.3
30°	353.5	501.5	1199.4	1429.0	2069.5	2441.1	2504.5	2525.7	2546.8	2564.9	2574.0
32.5°	323.3	444.1	1154.1	1404.8	2072.5	2410.9	2456.2	2468.3	2498.5	2540.8	2555.9
35°	296.1	386.7	1102.7	1371.6	2054.4	2362.6	2392.8	2404.8	2465.2	2528.7	2549.9
37.5°	268.9	344.4	1036.2	1314.2	2027.2	2305.2	2326.3	2347.4	2441.1	2516.7	2540.8
40°	241.7	308.1	957.7	1250.7	1984.9	2235.7	2253.8	2287.0	2410.9	2498.5	2522.6
42.5°	220.6	278.0	873.2	1184.3	1930.6	2157.1	2184.3	2232.6	2374.6	2468.3	2495.5
45°	202.4	247.7	782.5	1093.6	1861.0	2075.5	2114.8	2181.3	2332.3	2423.0	2447.1
47.5°	184.3	226.5	688.8	1000.0	1785.5	1993.9	2045.3	2120.9	2274.9	2362.6	2383.7
50°	169.2	205.5	595.2	900.3	1703.9	1906.4	1966.8	2045.3	2202.5	2284.0	2311.2
52.5°	157.1	187.3	507.5	800.6	1610.3	1815.7	1885.2	1966.8	2114.8	2193.3	2211.5
55°	145.1	172.2	432.0	694.9	1513.6	1719.0	1794.6	1873.2	2018.1	2084.6	2096.7
57.5°	139.0	160.1	368.6	595.2	1410.9	1610.3	1694.9	1767.4	1903.3	1954.7	1966.8
60°	129.9	151.0	320.3	510.6	1299.1	1507.5	1580.0	1652.6	1767.4	1809.7	1818.7
62.5°	120.9	145.1	284.0	429.0	1184.3	1386.7	1459.3	1525.7	1622.3	1652.6	1664.6
65°	114.8	139.0	256.8	368.6	1066.5	1259.8	1332.3	1389.7	1468.3	1498.5	1504.5
67.5°	108.7	132.9	235.7	317.2	948.7	1132.9	1187.3	1241.7	1302.2	1332.3	1335.4
70°	99.7	126.9	217.5	281.0	827.8	988.0	1033.2	1090.6	1139.0	1154.1	1163.2
72.5°	93.6	117.8	205.5	253.8	703.9	849.0	891.3	924.5	966.8	981.9	981.9
75°	84.6	105.8	193.3	226.5	577.1	694.9	731.1	764.4	797.6	803.6	794.6
77.5°	75.5	93.6	166.2	190.3	450.1	549.9	580.0	598.2	625.4	631.4	634.5
80°	63.5	81.6	129.9	148.0	326.3	404.8	426.0	441.1	465.2	465.2	471.3
82.5°	48.4	63.5	93.6	105.8	220.6	278.0	296.1	305.1	320.3	320.3	320.3
85°	30.2	39.3	60.4	69.4	132.9	169.2	181.3	184.3	196.4	199.4	199.4
87.5°	15.1	21.2	39.3	42.3	69.4	87.7	87.7	93.6	93.6	90.6	87.7
90°	7.4	13.4	19.3	20.8	32.7	48.5	56.4	50.2	37.6	28.2	28.2
92.5°	29.7	80.2	130.8	143.4	201.5	279.0	317.8	278.5	200.0	141.1	135.5
95°	71.3	163.7	256.1	279.2	495.8	784.5	928.9	829.0	628.9	479.0	462.0
97.5°	123.3	204.8	286.4	306.7	667.9	1149.3	1390.1	1326.9	1200.5	1105.7	1073.4
100°	163.3	237.3	311.3	329.7	730.4	1264.8	1531.9	1536.6	1545.8	1552.7	1514.2
102.5°	197.5	266.4	335.4	352.7	759.1	1301.0	1572.0	1652.5	1813.6	1934.4	1901.4
105°	255.5	313.8	372.2	386.9	780.4	1305.2	1567.5	1748.0	2109.1	2379.9	2362.1
107.5°	314.8	369.3	423.7	437.4	784.4	1247.1	1478.4	1730.3	2233.9	2611.5	2615.8
110°	354.9	404.1	453.3	465.6	778.5	1195.6	1404.2	1685.7	2248.7	2671.0	2689.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	394.3	441.1	488.1	499.8	778.7	1150.7	1336.6	1624.7	2200.9	2633.1	2661.5
115°	453.7	496.9	540.2	551.0	785.9	1099.1	1255.6	1533.3	2088.4	2504.7	2544.1
117.5°	512.4	551.6	590.9	600.7	800.5	1066.8	1199.9	1450.4	1951.4	2327.1	2370.8
120°	546.6	583.5	620.5	629.7	812.4	1056.0	1177.7	1406.6	1864.3	2207.6	2250.0
122.5°	579.9	617.2	654.6	663.8	829.4	1050.2	1160.6	1366.7	1778.9	2088.1	2130.0
125°	631.2	665.2	699.2	707.7	852.5	1045.5	1142.0	1317.2	1667.3	1929.9	1968.5
127.5°	672.8	707.0	741.4	750.0	875.5	1042.8	1126.5	1276.8	1577.4	1802.9	1835.4
130°	695.0	731.9	768.9	778.2	892.3	1044.5	1120.5	1254.3	1522.0	1722.8	1752.7
132.5°	718.0	755.0	791.9	801.2	905.9	1045.5	1115.3	1235.1	1474.7	1654.4	1681.2
135°	752.2	785.9	819.6	828.0	920.8	1044.5	1106.4	1206.7	1407.4	1557.9	1581.1
137.5°	787.1	820.4	853.8	862.1	943.1	1051.0	1104.9	1189.7	1359.4	1486.6	1505.6
140°	816.0	846.7	877.4	885.1	956.6	1052.0	1099.7	1173.0	1319.6	1429.4	1447.2
142.5°	838.3	866.7	895.1	902.2	968.0	1055.8	1099.7	1164.1	1292.8	1389.4	1404.6
145°	872.5	897.3	922.1	928.2	983.0	1055.9	1092.3	1145.0	1250.2	1329.2	1340.7
147.5°	906.6	930.7	954.8	960.9	1004.7	1063.1	1092.3	1133.7	1216.6	1278.7	1288.2
150°	928.9	950.7	972.5	978.0	1016.1	1066.9	1092.3	1127.3	1197.3	1249.8	1257.5
152.5°	952.0	968.5	985.0	989.1	1023.5	1069.4	1092.3	1122.2	1181.9	1226.7	1232.6
155°	986.1	998.3	1010.5	1013.6	1039.8	1074.8	1092.3	1116.0	1163.6	1199.2	1203.1
157.5°	1011.3	1023.2	1035.2	1038.1	1056.1	1080.2	1092.3	1110.8	1147.7	1175.5	1178.2
160°	1028.5	1037.8	1047.0	1049.3	1063.6	1082.7	1092.3	1108.2	1139.9	1163.6	1165.2
162.5°	1045.5	1052.5	1059.5	1061.1	1071.5	1085.3	1092.3	1105.7	1132.4	1152.5	1154.0
165°	1064.1	1070.3	1076.6	1078.2	1082.9	1089.2	1092.3	1101.9	1121.0	1135.4	1137.0
167.5°	1081.1	1084.1	1087.1	1087.8	1091.8	1097.0	1099.7	1106.0	1118.5	1127.9	1128.5
170°	1092.3	1095.2	1098.3	1099.0	1099.3	1099.5	1099.7	1106.0	1118.5	1127.9	1127.9
172.5°	1098.3	1098.9	1099.5	1099.7	1099.7	1099.7	1099.7	1104.7	1114.6	1122.0	1121.5
175°	1106.4	1106.4	1106.4	1106.4	1104.2	1101.2	1099.7	1102.8	1109.1	1113.8	1113.8
177.5°	1106.4	1106.4	1106.4	1106.4	1104.7	1102.4	1101.2	1103.7	1108.6	1112.4	1111.8
180°	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4	1106.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	939.6	939.6
2.5°	1003.0	997.0
5°	1290.0	1296.1
7.5°	1737.1	1734.2
10°	2160.1	2187.4
12.5°	2468.3	2474.3
15°	2655.6	2667.7
17.5°	2728.1	2731.1
20°	2731.1	2725.1
22.5°	2697.9	2691.9
25°	2658.7	2655.6
27.5°	2622.3	2625.4
30°	2607.3	2616.4
32.5°	2607.3	2622.3
35°	2613.3	2628.4
37.5°	2610.3	2628.4
40°	2598.2	2619.4
42.5°	2564.9	2580.1
45°	2513.6	2531.7
47.5°	2447.1	2459.3
50°	2362.6	2374.6
52.5°	2256.8	2259.8
55°	2129.9	2142.0
57.5°	1993.9	1997.0
60°	1842.9	1852.0
62.5°	1682.8	1682.8
65°	1513.6	1519.7
67.5°	1338.4	1353.5
70°	1160.1	1163.2
72.5°	984.9	984.9
75°	803.6	806.7
77.5°	631.4	631.4
80°	468.3	471.3
82.5°	323.3	329.3
85°	202.4	202.4
87.5°	93.6	84.6
90°	28.2	28.2
92.5°	113.1	90.6
95°	394.0	326.0
97.5°	943.9	814.6
100°	1360.1	1205.9
102.5°	1769.4	1637.3
105°	2291.2	2220.2
107.5°	2633.1	2650.2
110°	2763.4	2837.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2775.0	2888.5
115°	2701.4	2858.9
117.5°	2545.4	2720.0
120°	2419.7	2589.3
122.5°	2297.2	2464.5
125°	2122.6	2276.7
127.5°	1965.5	2095.5
130°	1872.9	1993.0
132.5°	1788.9	1896.5
135°	1673.8	1766.6
137.5°	1581.5	1657.4
140°	1518.1	1589.0
142.5°	1465.7	1526.7
145°	1387.0	1433.1
147.5°	1326.5	1364.8
150°	1288.5	1319.6
152.5°	1256.0	1279.4
155°	1218.6	1234.1
157.5°	1189.1	1199.9
160°	1171.5	1177.7
162.5°	1159.9	1165.9
165°	1143.3	1149.5
167.5°	1131.2	1133.9
170°	1127.9	1127.9
172.5°	1119.2	1116.8
175°	1113.8	1113.8
177.5°	1109.1	1106.4
180°	1106.4	1106.4



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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	6.15	7.06	7.10	8.02	9.29	19.33	20.23	20.28	21.20	22.47
	3H	6.86	7.67	7.82	8.65	9.94	21.17	21.99	22.13	22.96	24.25
	4H	7.16	7.93	8.13	8.91	10.21	21.82	22.59	22.79	23.57	24.87
	6H	7.41	8.12	8.40	9.11	10.42	22.25	22.96	23.24	23.95	25.26
	8H	7.48	8.16	8.47	9.16	10.47	22.38	23.05	23.36	24.06	25.36
	12H	7.50	8.15	8.50	9.14	10.47	22.45	23.09	23.44	24.09	25.42
4H	2H	13.37	14.14	14.35	15.12	16.42	19.61	20.38	20.59	21.36	22.65
	3H	14.94	15.59	15.93	16.60	17.91	21.66	22.30	22.65	23.31	24.62
	4H	15.04	15.63	16.04	16.63	17.97	22.43	23.02	23.42	24.02	25.35
	6H	15.05	15.56	16.06	16.59	17.92	22.97	23.48	23.98	24.51	25.84
	8H	15.03	15.51	16.04	16.53	17.87	23.13	23.61	24.14	24.63	25.97
	12H	14.99	15.42	16.02	16.46	17.81	23.23	23.66	24.26	24.70	26.05
8H	4H	16.49	16.97	17.50	17.99	19.33	22.49	22.97	23.50	23.99	25.33
	6H	16.73	17.13	17.77	18.19	19.53	23.12	23.52	24.16	24.58	25.92
	8H	16.75	17.10	17.79	18.15	19.51	23.34	23.69	24.39	24.74	26.10
	12H	16.72	17.03	17.77	18.07	19.48	23.49	23.80	24.54	24.84	26.24
12H	4H	16.64	17.07	17.66	18.10	19.45	22.45	22.88	23.48	23.91	25.26
	6H	16.99	17.34	18.04	18.39	19.75	23.11	23.46	24.15	24.50	25.86
	8H	17.06	17.37	18.11	18.41	19.82	23.34	23.65	24.39	24.69	26.09