

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: P937693

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937693
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

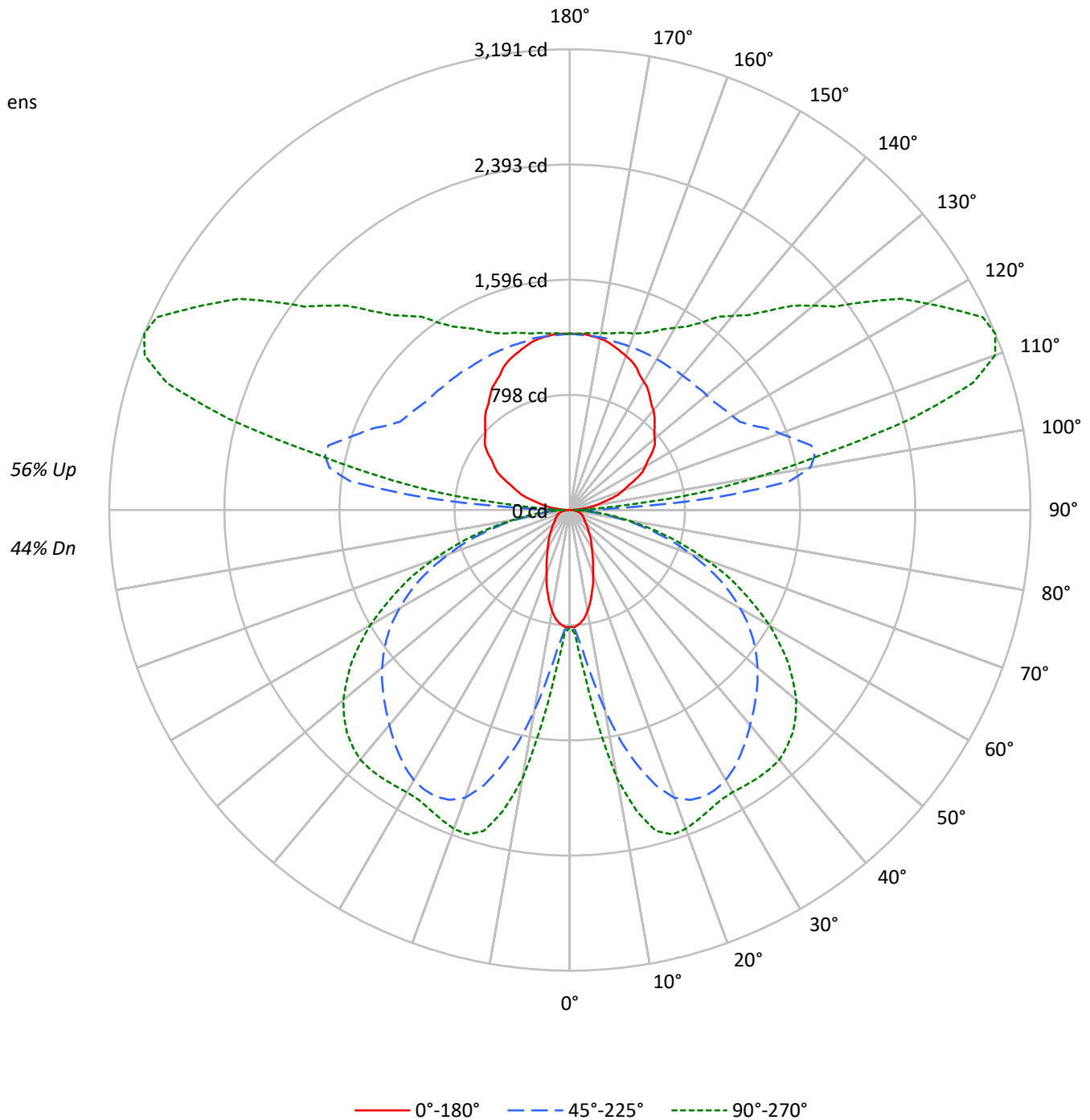
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14196.5 lumens
Efficiency: N/A
Efficacy: 122.4 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): 116
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





TEST NUMBER: P937693

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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44	44	44	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36	36	36	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30	30	30	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24	24	24	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20	20	20	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17	17	17	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11	11	11	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10	10	10	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9	9	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3760	3760	3760
5°	3673	4346	5054
10°	3331	6335	8378
15°	2832	8276	10117
20°	2305	9590	10310
25°	1923	10036	10101
30°	1622	10099	10082
35°	1434	9932	10342
40°	1249	9713	10612
45°	1131	9554	10654
50°	1038	9410	10477
55°	993	9200	10013
60°	1017	8796	9279
65°	1058	8182	8272
70°	1128	7135	6988
75°	1250	5817	5453
80°	1365	4035	3675
85°	1211	2141	1881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10654 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	0.7
10°-20°	464.6	3.3
20°-30°	812.6	5.7
30°-40°	1046.1	7.4
40°-50°	1168.4	8.2
50°-60°	1119.1	7.9
60°-70°	886.9	6.2
70°-80°	521.5	3.7
80°-90°	149.6	1.1
90°-100°	595.8	4.2
100°-110°	1566.2	11.0
110°-120°	1624.0	11.4
120°-130°	1302.7	9.2
130°-140°	1022.1	7.2
140°-150°	784.5	5.5
150°-160°	565.0	4.0
160°-170°	345.7	2.4
170°-180°	116.8	0.8
0°-30°	1382.0	9.7
0°-40°	2428.1	17.1
0°-60°	4715.7	33.2
0°-90°	6273.7	44.2
90°-120°	3786.0	26.7
90°-150°	6895.3	48.6
90°-180°	7923.0	55.8
0°-180°	14196.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	790	847	954	1079	1118	73
15°	592	1092	1840	2230	2301	165
25°	378	1238	2191	2288	2290	174
35°	255	1183	2064	2181	2267	159
45°	175	943	1824	2090	2184	135
55°	125	599	1548	1798	1848	114
65°	99	318	1149	1292	1311	98
75°	73	195	630	693	696	76
85°	26	60	156	172	175	28
90°	8	23	62	31	31	9
95°	79	308	1026	529	360	87
105°	282	427	1732	2629	2452	299
115°	501	609	1387	2767	3158	495
125°	697	782	1262	2132	2515	619
135°	831	915	1222	1721	1951	643
145°	964	1025	1207	1468	1583	604
155°	1089	1120	1207	1325	1363	500
165°	1175	1191	1207	1254	1270	332
175°	1222	1222	1215	1230	1230	116
180°	1222	1222	1222	1222	1222	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4
2.5°	810.4	810.4	815.6	818.2	823.4	826.0	831.2	836.4	852.1	854.7	859.9
5°	789.5	799.9	833.9	846.9	883.4	932.9	953.7	987.6	1057.9	1078.8	1091.8
7.5°	758.2	781.7	865.1	885.9	977.1	1107.4	1162.1	1235.1	1347.2	1401.9	1446.2
10°	708.7	758.2	906.8	956.3	1104.8	1302.8	1404.5	1506.1	1675.4	1751.0	1779.6
12.5°	654.0	734.8	951.1	1018.8	1232.5	1521.7	1644.2	1756.3	1949.0	2050.7	2066.3
15°	591.5	700.9	992.8	1091.8	1368.0	1704.1	1839.6	1977.7	2157.5	2230.4	2248.7
17.5°	536.8	674.9	1031.8	1136.1	1472.2	1868.3	2006.4	2121.0	2266.9	2316.4	2329.5
20°	469.0	633.2	1057.9	1193.4	1581.6	1988.2	2121.0	2209.6	2308.6	2339.9	2345.1
22.5°	419.5	588.8	1073.6	1214.3	1654.6	2061.1	2173.1	2243.4	2311.3	2321.6	2324.3
25°	377.8	539.3	1070.9	1237.7	1717.1	2105.4	2191.4	2243.4	2282.6	2287.8	2287.8
27.5°	338.7	484.6	1060.5	1243.0	1764.1	2115.9	2183.6	2220.1	2238.3	2248.7	2248.7
30°	304.9	432.6	1034.4	1232.5	1784.9	2105.4	2160.1	2178.4	2196.6	2212.2	2220.1
32.5°	278.8	383.1	995.4	1211.6	1787.5	2079.4	2118.4	2128.9	2154.9	2191.4	2204.4
35°	255.4	333.6	951.1	1183.0	1771.8	2037.7	2063.7	2074.1	2126.2	2180.9	2199.2
37.5°	231.9	297.1	893.7	1133.5	1748.4	1988.2	2006.4	2024.7	2105.4	2170.5	2191.4
40°	208.4	265.8	826.0	1078.8	1711.9	1928.2	1943.8	1972.5	2079.4	2154.9	2175.7
42.5°	190.2	239.7	753.0	1021.4	1665.1	1860.5	1884.0	1925.6	2048.0	2128.9	2152.3
45°	174.6	213.7	674.9	943.2	1605.1	1790.1	1824.0	1881.3	2011.5	2089.7	2110.6
47.5°	158.9	195.4	594.1	862.5	1539.9	1719.8	1764.1	1829.2	1962.0	2037.7	2055.9
50°	145.9	177.2	513.3	776.5	1469.6	1644.2	1696.3	1764.1	1899.5	1969.9	1993.3
52.5°	135.5	161.5	437.8	690.5	1388.8	1566.0	1625.9	1696.3	1824.0	1891.7	1907.3
55°	125.0	148.5	372.6	599.3	1305.5	1482.6	1547.7	1615.6	1740.6	1797.9	1808.3
57.5°	119.9	138.1	317.9	513.3	1216.8	1388.8	1461.7	1524.4	1641.6	1685.9	1696.3
60°	112.0	130.3	276.2	440.3	1120.5	1300.2	1362.8	1425.3	1524.4	1560.8	1568.6
62.5°	104.2	125.0	244.9	370.0	1021.4	1196.0	1258.5	1315.9	1399.2	1425.3	1435.7
65°	99.0	119.9	221.5	317.9	919.8	1086.6	1149.1	1198.6	1266.3	1292.4	1297.7
67.5°	93.8	114.7	203.2	273.6	818.2	977.1	1024.1	1070.9	1123.1	1149.1	1151.7
70°	86.0	109.4	187.6	242.4	714.0	852.1	891.1	940.6	982.4	995.4	1003.2
72.5°	80.8	101.7	177.2	218.9	607.1	732.2	768.7	797.4	833.9	846.9	846.9
75°	73.0	91.2	166.7	195.4	497.7	599.3	630.5	659.2	687.9	693.2	685.3
77.5°	65.2	80.8	143.3	164.2	388.3	474.3	500.3	515.9	539.3	544.6	547.2
80°	54.7	70.4	112.0	127.7	281.4	349.1	367.4	380.4	401.3	401.3	406.5
82.5°	41.7	54.7	80.8	91.2	190.2	239.7	255.4	263.2	276.2	276.2	276.2
85°	26.0	33.9	52.2	59.9	114.7	145.9	156.4	158.9	169.4	172.0	172.0
87.5°	13.0	18.2	33.9	36.5	59.9	75.5	75.5	80.8	80.8	78.2	75.5
90°	8.2	14.8	21.3	23.0	36.1	53.5	62.3	55.4	41.5	31.2	31.2
92.5°	32.8	88.6	144.4	158.4	222.5	308.2	351.0	307.6	221.0	155.9	149.7
95°	78.8	180.8	282.9	308.4	547.6	866.6	1026.1	915.7	694.7	529.1	510.4
97.5°	136.2	226.2	316.3	338.8	737.7	1269.6	1535.5	1465.7	1326.1	1221.4	1185.7
100°	180.4	262.1	343.8	364.2	806.8	1397.1	1692.2	1697.3	1707.5	1715.1	1672.6
102.5°	218.2	294.3	370.5	389.6	838.5	1437.1	1736.4	1825.4	2003.4	2136.8	2100.3
105°	282.2	346.7	411.2	427.3	862.1	1441.7	1731.5	1930.9	2329.7	2628.9	2609.3
107.5°	347.8	407.9	468.1	483.1	866.5	1377.5	1633.1	1911.3	2467.6	2884.7	2889.5
110°	392.0	446.4	500.7	514.3	859.9	1320.6	1551.1	1862.1	2483.9	2950.4	2970.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	435.5	487.3	539.1	552.1	860.2	1271.1	1476.4	1794.7	2431.2	2908.6	2940.0
115°	501.2	548.9	596.7	608.7	868.1	1214.1	1387.0	1693.7	2306.8	2766.7	2810.2
117.5°	566.0	609.3	652.7	663.6	884.2	1178.4	1325.5	1602.2	2155.6	2570.6	2618.8
120°	603.7	644.5	685.4	695.5	897.4	1166.4	1300.9	1553.7	2059.4	2438.6	2485.4
122.5°	640.6	681.8	723.0	733.3	916.2	1160.0	1282.0	1509.7	1965.0	2306.5	2352.8
125°	697.2	734.8	772.3	781.7	941.6	1154.9	1261.5	1454.9	1841.7	2131.8	2174.4
127.5°	743.1	781.0	819.0	828.4	967.1	1151.9	1244.3	1410.4	1742.5	1991.5	2027.4
130°	767.7	808.5	849.3	859.6	985.6	1153.7	1237.7	1385.5	1681.2	1903.0	1936.1
132.5°	793.1	834.0	874.8	885.0	1000.7	1154.9	1232.0	1364.3	1629.0	1827.5	1857.1
135°	830.9	868.1	905.3	914.6	1017.2	1153.8	1222.1	1333.0	1554.6	1720.9	1746.5
137.5°	869.5	906.2	943.1	952.3	1041.7	1160.9	1220.5	1314.1	1501.6	1642.1	1663.1
140°	901.4	935.3	969.2	977.7	1056.7	1162.1	1214.8	1295.7	1457.6	1579.0	1598.6
142.5°	926.1	957.4	988.8	996.6	1069.3	1166.2	1214.8	1285.8	1428.0	1534.7	1551.6
145°	963.8	991.1	1018.5	1025.3	1085.8	1166.3	1206.6	1264.7	1381.0	1468.3	1481.0
147.5°	1001.5	1028.1	1054.7	1061.4	1109.8	1174.3	1206.6	1252.3	1343.8	1412.4	1423.0
150°	1026.1	1050.2	1074.2	1080.3	1122.4	1178.5	1206.6	1245.2	1322.5	1380.5	1389.1
152.5°	1051.6	1069.8	1088.1	1092.6	1130.5	1181.2	1206.6	1239.6	1305.6	1355.1	1361.6
155°	1089.2	1102.7	1116.3	1119.6	1148.6	1187.2	1206.6	1232.8	1285.3	1324.7	1328.9
157.5°	1117.1	1130.3	1143.5	1146.7	1166.6	1193.3	1206.6	1227.0	1267.8	1298.5	1301.4
160°	1136.1	1146.3	1156.5	1159.0	1174.9	1196.0	1206.6	1224.1	1259.1	1285.3	1287.1
162.5°	1154.9	1162.6	1170.3	1172.2	1183.6	1198.9	1206.6	1221.4	1250.8	1273.0	1274.7
165°	1175.4	1182.3	1189.2	1191.0	1196.2	1203.1	1206.6	1217.1	1238.3	1254.2	1256.0
167.5°	1194.2	1197.5	1200.8	1201.6	1206.0	1211.8	1214.8	1221.7	1235.6	1245.9	1246.6
170°	1206.6	1209.8	1213.2	1214.0	1214.3	1214.6	1214.8	1221.7	1235.6	1245.9	1245.9
172.5°	1213.2	1213.9	1214.6	1214.8	1214.8	1214.8	1214.8	1220.3	1231.2	1239.4	1238.8
175°	1222.1	1222.1	1222.1	1222.1	1219.7	1216.4	1214.8	1218.2	1225.1	1230.3	1230.3
177.5°	1222.1	1222.1	1222.1	1222.1	1220.3	1217.7	1216.4	1219.2	1224.6	1228.8	1228.1
180°	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	810.4	810.4
2.5°	865.1	859.9
5°	1112.6	1117.8
7.5°	1498.2	1495.7
10°	1863.0	1886.5
12.5°	2128.9	2134.1
15°	2290.4	2300.8
17.5°	2352.9	2355.6
20°	2355.6	2350.3
22.5°	2326.9	2321.6
25°	2293.0	2290.4
27.5°	2261.7	2264.3
30°	2248.7	2256.6
32.5°	2248.7	2261.7
35°	2253.9	2266.9
37.5°	2251.3	2266.9
40°	2240.9	2259.1
42.5°	2212.2	2225.2
45°	2167.9	2183.6
47.5°	2110.6	2121.0
50°	2037.7	2048.0
52.5°	1946.5	1949.0
55°	1837.0	1847.5
57.5°	1719.8	1722.3
60°	1589.4	1597.3
62.5°	1451.4	1451.4
65°	1305.5	1310.7
67.5°	1154.3	1167.3
70°	1000.6	1003.2
72.5°	849.4	849.4
75°	693.2	695.7
77.5°	544.6	544.6
80°	403.9	406.5
82.5°	278.8	284.1
85°	174.6	174.6
87.5°	80.8	73.0
90°	31.2	31.2
92.5°	124.9	100.1
95°	435.2	360.1
97.5°	1042.7	899.8
100°	1502.4	1332.1
102.5°	1954.4	1808.6
105°	2530.9	2452.5
107.5°	2908.5	2927.4
110°	3052.5	3134.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3065.3	3190.7
115°	2984.0	3158.0
117.5°	2811.7	3004.5
120°	2672.8	2860.2
122.5°	2537.6	2722.3
125°	2344.6	2514.9
127.5°	2171.1	2314.7
130°	2068.8	2201.5
132.5°	1976.0	2094.9
135°	1848.9	1951.4
137.5°	1746.9	1830.8
140°	1676.9	1755.3
142.5°	1619.0	1686.5
145°	1532.0	1583.0
147.5°	1465.3	1507.6
150°	1423.3	1457.6
152.5°	1387.4	1413.2
155°	1346.1	1363.2
157.5°	1313.5	1325.5
160°	1294.0	1300.9
162.5°	1281.2	1287.8
165°	1262.9	1269.8
167.5°	1249.6	1252.5
170°	1245.9	1245.9
172.5°	1236.2	1233.7
175°	1230.3	1230.3
177.5°	1225.1	1222.1
180°	1222.1	1222.1



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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	5.05	5.90	6.05	6.91	8.26	18.23	19.07	19.23	20.09	21.44
	3H	5.76	6.51	6.76	7.54	8.91	20.07	20.83	21.08	21.85	23.22
	4H	6.05	6.77	7.08	7.80	9.18	20.71	21.43	21.73	22.46	23.83
	6H	6.30	6.97	7.34	8.00	9.39	21.14	21.81	22.17	22.84	24.23
	8H	6.37	7.00	7.41	8.05	9.44	21.26	21.90	22.30	22.94	24.33
	12H	6.39	6.99	7.43	8.03	9.44	21.33	21.93	22.37	22.97	24.38
4H	2H	12.27	12.98	13.29	14.01	15.39	18.50	19.22	19.53	20.25	21.62
	3H	13.83	14.43	14.87	15.49	16.88	20.55	21.15	21.58	22.20	23.59
	4H	13.93	14.48	14.97	15.52	16.94	21.31	21.86	22.36	22.91	24.32
	6H	13.93	14.41	14.99	15.48	16.89	21.85	22.33	22.90	23.40	24.80
	8H	13.91	14.36	14.97	15.42	16.84	22.01	22.46	23.07	23.52	24.94
	12H	13.87	14.27	14.94	15.35	16.77	22.11	22.51	23.18	23.58	25.01
8H	4H	15.37	15.81	16.42	16.88	18.30	21.37	21.82	22.43	22.88	24.30
	6H	15.61	15.98	16.69	17.08	18.50	22.00	22.37	23.08	23.47	24.89
	8H	15.63	15.95	16.71	17.04	18.48	22.22	22.54	23.31	23.63	25.07
	12H	15.60	15.88	16.69	16.96	18.44	22.36	22.65	23.45	23.73	25.21
12H	4H	15.51	15.91	16.58	16.99	18.42	21.32	21.73	22.40	22.80	24.23
	6H	15.87	16.19	16.95	17.28	18.72	21.98	22.31	23.07	23.39	24.83
	8H	15.94	16.22	17.03	17.30	18.78	22.21	22.50	23.30	23.58	25.06