

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: P938562

Luminaire Tested: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938562
REPORT IS A COMBINATION OF REPORTS P933640 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

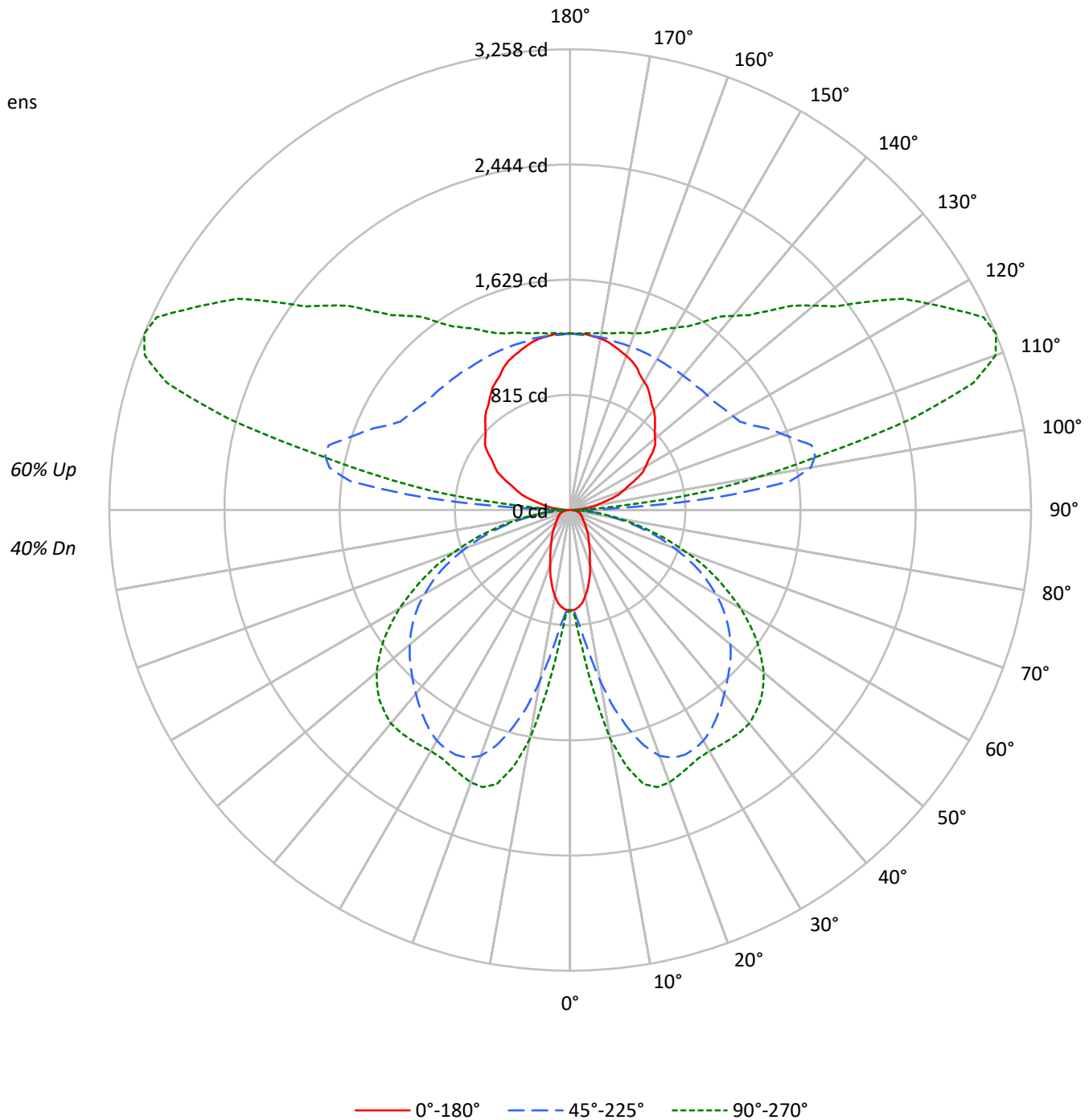
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13563.1 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 124.8
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-125D-93050-1D-UNV-STD-W-6-3500K

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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4372	4372	4372
5°	4270	5052	5877
10°	3871	7363	9743
15°	3289	9617	11765
20°	2677	11142	11990
25°	2232	11657	11746
30°	1881	11727	11724
35°	1663	11529	12028
40°	1448	11273	12340
45°	1311	11084	12389
50°	1200	10914	12184
55°	1148	10666	11644
60°	1175	10193	10791
65°	1221	9476	9619
70°	1297	8258	8127
75°	1433	6728	6342
80°	1553	4659	4273
85°	1353	2469	2188

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12389 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	0.7
10°-20°	405.2	3.0
20°-30°	708.8	5.2
30°-40°	912.4	6.7
40°-50°	1019.1	7.5
50°-60°	976.1	7.2
60°-70°	773.5	5.7
70°-80°	454.9	3.4
80°-90°	131.1	1.0
90°-100°	608.4	4.5
100°-110°	1599.4	11.8
110°-120°	1658.4	12.2
120°-130°	1330.3	9.8
130°-140°	1043.8	7.7
140°-150°	801.1	5.9
150°-160°	576.9	4.3
160°-170°	353.0	2.6
170°-180°	119.3	0.9
0°-30°	1205.4	8.9
0°-40°	2117.8	15.6
0°-60°	4112.9	30.3
0°-90°	5472.4	40.3
90°-120°	3866.2	28.5
90°-150°	7041.4	51.9
90°-180°	8091.0	59.7
0°-180°	13563.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	689	739	832	941	975	64
15°	516	952	1604	1945	2007	144
25°	330	1080	1911	1995	1998	152
35°	223	1032	1800	1902	1977	139
45°	152	823	1591	1823	1904	118
55°	109	523	1350	1568	1611	99
65°	86	277	1002	1127	1143	86
75°	64	170	550	604	607	67
85°	23	52	136	150	152	24
90°	8	24	64	32	32	8
95°	80	315	1048	540	368	89
105°	288	436	1768	2685	2504	305
115°	512	622	1416	2825	3225	505
125°	712	798	1288	2177	2568	632
135°	848	934	1248	1757	1993	657
145°	984	1047	1232	1499	1617	617
155°	1112	1143	1232	1353	1392	511
165°	1200	1216	1232	1281	1297	339
175°	1248	1248	1240	1256	1256	118
180°	1248	1248	1248	1248	1248	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	706.8	706.8	706.8	706.8	706.8	706.8	706.8	706.8	706.8	706.8	706.8
2.5°	706.8	706.8	711.3	713.6	718.1	720.5	724.9	729.5	743.1	745.4	750.0
5°	688.6	697.7	727.3	738.6	770.4	813.6	831.7	861.3	922.7	940.9	952.3
7.5°	661.4	681.8	754.5	772.7	852.2	965.9	1013.6	1077.2	1174.9	1222.6	1261.3
10°	618.1	661.4	790.8	834.1	963.6	1136.3	1225.0	1313.6	1461.3	1527.2	1552.2
12.5°	570.4	640.9	829.5	888.6	1074.9	1327.2	1434.0	1531.7	1699.9	1788.6	1802.2
15°	515.9	611.3	865.9	952.3	1193.1	1486.3	1604.5	1724.9	1881.8	1945.3	1961.3
17.5°	468.2	588.6	900.0	990.8	1284.1	1629.5	1749.9	1849.9	1977.2	2020.4	2031.7
20°	409.1	552.2	922.7	1040.9	1379.5	1734.0	1849.9	1927.2	2013.6	2040.8	2045.3
22.5°	365.9	513.6	936.3	1059.1	1443.2	1797.6	1895.4	1956.7	2015.8	2024.9	2027.2
25°	329.6	470.4	934.1	1079.5	1497.7	1836.3	1911.3	1956.7	1990.8	1995.4	1995.4
27.5°	295.5	422.7	924.9	1084.0	1538.6	1845.3	1904.4	1936.3	1952.1	1961.3	1961.3
30°	265.9	377.3	902.2	1074.9	1556.8	1836.3	1884.0	1899.9	1915.8	1929.5	1936.3
32.5°	243.2	334.0	868.1	1056.7	1559.0	1813.5	1847.7	1856.7	1879.4	1911.3	1922.6
35°	222.8	290.9	829.5	1031.8	1545.4	1777.2	1799.9	1809.0	1854.5	1902.2	1918.1
37.5°	202.3	259.1	779.5	988.6	1524.9	1734.0	1749.9	1765.8	1836.3	1893.0	1911.3
40°	181.8	231.8	720.5	940.9	1493.1	1681.8	1695.4	1720.3	1813.5	1879.4	1897.6
42.5°	165.9	209.1	656.8	890.8	1452.2	1622.7	1643.1	1679.4	1786.2	1856.7	1877.2
45°	152.3	186.3	588.6	822.7	1399.9	1561.2	1590.8	1640.8	1754.5	1822.7	1840.9
47.5°	138.6	170.5	518.1	752.2	1343.1	1499.9	1538.6	1595.4	1711.3	1777.2	1793.1
50°	127.2	154.5	447.7	677.2	1281.7	1434.0	1479.5	1538.6	1656.8	1718.1	1738.5
52.5°	118.2	140.9	381.8	602.3	1211.3	1365.8	1418.1	1479.5	1590.8	1649.9	1663.6
55°	109.0	129.6	325.0	522.7	1138.6	1293.1	1350.0	1409.0	1518.1	1568.1	1577.2
57.5°	104.6	120.4	277.3	447.7	1061.3	1211.3	1274.9	1329.4	1431.8	1470.4	1479.5
60°	97.7	113.6	240.9	384.1	977.2	1134.0	1188.6	1243.1	1329.4	1361.3	1368.1
62.5°	90.9	109.0	213.6	322.7	890.8	1043.1	1097.7	1147.7	1220.4	1243.1	1252.2
65°	86.4	104.6	193.2	277.3	802.2	947.7	1002.2	1045.4	1104.5	1127.2	1131.8
67.5°	81.8	100.0	177.3	238.6	713.6	852.2	893.2	934.1	979.5	1002.2	1004.5
70°	75.0	95.4	163.7	211.4	622.7	743.1	777.2	820.4	856.8	868.1	875.0
72.5°	70.5	88.6	154.5	190.9	529.5	638.6	670.4	695.4	727.3	738.6	738.6
75°	63.7	79.5	145.5	170.5	434.0	522.7	550.0	575.0	599.9	604.5	597.7
77.5°	56.9	70.5	125.0	143.2	338.6	413.6	436.4	450.0	470.4	475.0	477.3
80°	47.7	61.3	97.7	111.4	245.4	304.5	320.4	331.8	350.0	350.0	354.5
82.5°	36.3	47.7	70.5	79.5	165.9	209.1	222.8	229.6	240.9	240.9	240.9
85°	22.7	29.5	45.5	52.3	100.0	127.2	136.4	138.6	147.7	150.0	150.0
87.5°	11.4	15.9	29.5	31.8	52.3	65.9	65.9	70.5	70.5	68.2	65.9
90°	8.4	15.1	21.8	23.5	36.9	54.7	63.7	56.6	42.4	31.9	31.9
92.5°	33.5	90.4	147.5	161.7	227.3	314.8	358.5	314.2	225.6	159.2	152.8
95°	80.4	184.6	288.9	315.0	559.3	885.0	1047.9	935.1	709.4	540.2	521.1
97.5°	139.0	231.0	322.9	345.9	753.3	1296.5	1568.0	1496.8	1354.2	1247.3	1210.7
100°	184.3	267.7	351.1	371.9	824.0	1426.7	1728.0	1733.2	1743.7	1751.5	1708.1
102.5°	222.8	300.6	378.4	397.9	856.4	1467.6	1773.3	1864.0	2045.7	2182.0	2144.7
105°	288.1	354.0	419.9	436.4	880.4	1472.3	1768.2	1971.8	2379.1	2684.6	2664.5
107.5°	355.2	416.6	478.0	493.3	884.7	1406.7	1667.7	1951.8	2519.9	2945.9	2950.8
110°	400.4	455.9	511.3	525.2	878.1	1348.6	1583.9	1901.5	2536.6	3012.9	3033.8



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CATALOG NUMBER: SQ4-FB-150U-125D-93050-1D-UNV-STD-W-6-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	444.8	497.6	550.4	563.7	878.4	1297.9	1507.7	1832.7	2482.7	2970.2	3002.2
115°	511.8	560.6	609.3	621.5	886.4	1239.7	1416.4	1729.5	2355.7	2825.2	2869.7
117.5°	577.9	622.2	666.6	677.7	903.0	1203.4	1353.6	1636.2	2201.2	2625.1	2674.3
120°	616.5	658.2	700.0	710.3	916.4	1191.1	1328.5	1586.7	2103.0	2490.2	2538.0
122.5°	654.2	696.3	738.4	748.8	935.6	1184.7	1309.2	1541.7	2006.7	2355.4	2402.6
125°	712.0	750.3	788.7	798.3	961.6	1179.4	1288.3	1485.8	1880.7	2177.0	2220.4
127.5°	758.9	797.5	836.3	846.0	987.5	1176.3	1270.6	1440.2	1779.3	2033.7	2070.4
130°	784.0	825.7	867.5	877.9	1006.6	1178.2	1264.0	1415.0	1716.9	1943.3	1977.1
132.5°	810.0	851.7	893.4	903.8	1021.9	1179.4	1258.1	1393.2	1663.5	1866.2	1896.5
135°	848.5	886.4	924.5	934.0	1038.7	1178.2	1248.1	1361.2	1587.6	1757.3	1783.5
137.5°	887.9	925.5	963.1	972.5	1063.8	1185.5	1246.4	1342.1	1533.4	1676.9	1698.3
140°	920.6	955.2	989.8	998.5	1079.1	1186.7	1240.5	1323.2	1488.5	1612.5	1632.4
142.5°	945.6	977.7	1009.7	1017.7	1092.0	1191.0	1240.5	1313.2	1458.3	1567.2	1584.3
145°	984.2	1012.2	1040.1	1047.1	1108.8	1191.0	1232.1	1291.5	1410.3	1499.4	1512.4
147.5°	1022.7	1049.9	1077.1	1083.9	1133.3	1199.2	1232.1	1278.9	1372.2	1442.3	1453.2
150°	1047.9	1072.4	1096.9	1103.1	1146.1	1203.5	1232.1	1271.6	1350.5	1409.7	1418.4
152.5°	1073.8	1092.5	1111.1	1115.7	1154.5	1206.3	1232.1	1265.8	1333.2	1383.7	1390.3
155°	1112.3	1126.1	1139.9	1143.3	1172.9	1212.4	1232.1	1258.9	1312.5	1352.7	1357.1
157.5°	1140.8	1154.2	1167.7	1171.0	1191.4	1218.5	1232.1	1253.0	1294.7	1326.0	1329.0
160°	1160.1	1170.5	1180.9	1183.5	1199.7	1221.3	1232.1	1250.0	1285.8	1312.5	1314.3
162.5°	1179.4	1187.2	1195.0	1196.9	1208.7	1224.3	1232.1	1247.2	1277.3	1300.0	1301.7
165°	1200.3	1207.4	1214.4	1216.2	1221.5	1228.5	1232.1	1243.0	1264.5	1280.7	1282.5
167.5°	1219.6	1222.9	1226.3	1227.1	1231.6	1237.6	1240.5	1247.6	1261.8	1272.3	1273.0
170°	1232.1	1235.4	1238.8	1239.6	1239.9	1240.4	1240.5	1247.6	1261.8	1272.3	1272.3
172.5°	1238.8	1239.6	1240.4	1240.5	1240.5	1240.5	1240.5	1246.1	1257.3	1265.6	1265.0
175°	1248.1	1248.1	1248.1	1248.1	1245.6	1242.2	1240.5	1244.0	1251.1	1256.4	1256.4
177.5°	1248.1	1248.1	1248.1	1248.1	1246.1	1243.5	1242.2	1244.9	1250.6	1254.8	1254.1
180°	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1	1248.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	706.8	706.8
2.5°	754.5	750.0
5°	970.4	975.0
7.5°	1306.8	1304.5
10°	1624.9	1645.4
12.5°	1856.7	1861.3
15°	1997.6	2006.8
17.5°	2052.1	2054.5
20°	2054.5	2049.9
22.5°	2029.4	2024.9
25°	1999.9	1997.6
27.5°	1972.6	1974.9
30°	1961.3	1968.1
32.5°	1961.3	1972.6
35°	1965.8	1977.2
37.5°	1963.5	1977.2
40°	1954.5	1970.3
42.5°	1929.5	1940.9
45°	1890.8	1904.4
47.5°	1840.9	1849.9
50°	1777.2	1786.2
52.5°	1697.6	1699.9
55°	1602.2	1611.3
57.5°	1499.9	1502.2
60°	1386.3	1393.1
62.5°	1265.9	1265.9
65°	1138.6	1143.1
67.5°	1006.8	1018.1
70°	872.7	875.0
72.5°	740.9	740.9
75°	604.5	606.8
77.5°	475.0	475.0
80°	352.2	354.5
82.5°	243.2	247.7
85°	152.3	152.3
87.5°	70.5	63.7
90°	31.9	31.9
92.5°	127.5	102.2
95°	444.3	367.7
97.5°	1064.8	918.9
100°	1534.2	1360.3
102.5°	1995.8	1846.9
105°	2584.5	2504.5
107.5°	2970.1	2989.4
110°	3117.1	3200.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3130.3	3258.3
115°	3047.2	3224.8
117.5°	2871.3	3068.2
120°	2729.4	2920.8
122.5°	2591.3	2780.0
125°	2394.2	2568.1
127.5°	2217.1	2363.8
130°	2112.7	2248.1
132.5°	2017.9	2139.3
135°	1888.1	1992.7
137.5°	1784.0	1869.6
140°	1712.5	1792.5
142.5°	1653.3	1722.1
145°	1564.5	1616.6
147.5°	1496.3	1539.6
150°	1453.4	1488.5
152.5°	1416.7	1443.2
155°	1374.6	1392.1
157.5°	1341.4	1353.6
160°	1321.4	1328.5
162.5°	1308.3	1315.0
165°	1289.5	1296.6
167.5°	1276.1	1279.0
170°	1272.3	1272.3
172.5°	1262.4	1259.8
175°	1256.4	1256.4
177.5°	1251.0	1248.1
180°	1248.1	1248.1



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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	5.18	5.98	6.20	7.03	8.43	18.34	19.15	19.37	20.19	21.59
	3H	5.88	6.60	6.91	7.65	9.07	20.17	20.90	21.21	21.95	23.37
	4H	6.17	6.86	7.22	7.91	9.34	20.81	21.50	21.86	22.55	23.98
	6H	6.42	7.06	7.48	8.11	9.55	21.23	21.87	22.29	22.92	24.36
	8H	6.49	7.09	7.55	8.16	9.60	21.35	21.96	22.42	23.03	24.46
	12H	6.50	7.08	7.57	8.14	9.60	21.41	21.99	22.48	23.06	24.51
4H	2H	12.38	13.07	13.43	14.12	15.54	18.61	19.30	19.67	20.35	21.78
	3H	13.94	14.52	15.00	15.60	17.04	20.64	21.22	21.71	22.30	23.74
	4H	14.03	14.56	15.10	15.63	17.09	21.40	21.94	22.48	23.01	24.47
	6H	14.04	14.50	15.12	15.59	17.04	21.94	22.39	23.02	23.49	24.94
	8H	14.01	14.44	15.10	15.53	17.00	22.10	22.52	23.18	23.61	25.08
	12H	13.97	14.35	15.07	15.45	16.93	22.18	22.57	23.28	23.67	25.15
8H	4H	15.47	15.89	16.55	16.98	18.45	21.46	21.89	22.54	22.97	24.44
	6H	15.71	16.06	16.81	17.19	18.66	22.08	22.44	23.19	23.56	25.03
	8H	15.73	16.04	16.84	17.14	18.63	22.30	22.61	23.41	23.72	25.21
	12H	15.69	15.96	16.81	17.07	18.60	22.44	22.71	23.55	23.82	25.34
12H	4H	15.61	15.99	16.71	17.09	18.57	21.41	21.80	22.51	22.90	24.37
	6H	15.96	16.28	17.08	17.38	18.87	22.07	22.38	23.18	23.49	24.97
	8H	16.03	16.30	17.15	17.41	18.94	22.29	22.56	23.41	23.67	25.20