

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: P937746

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937746
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-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

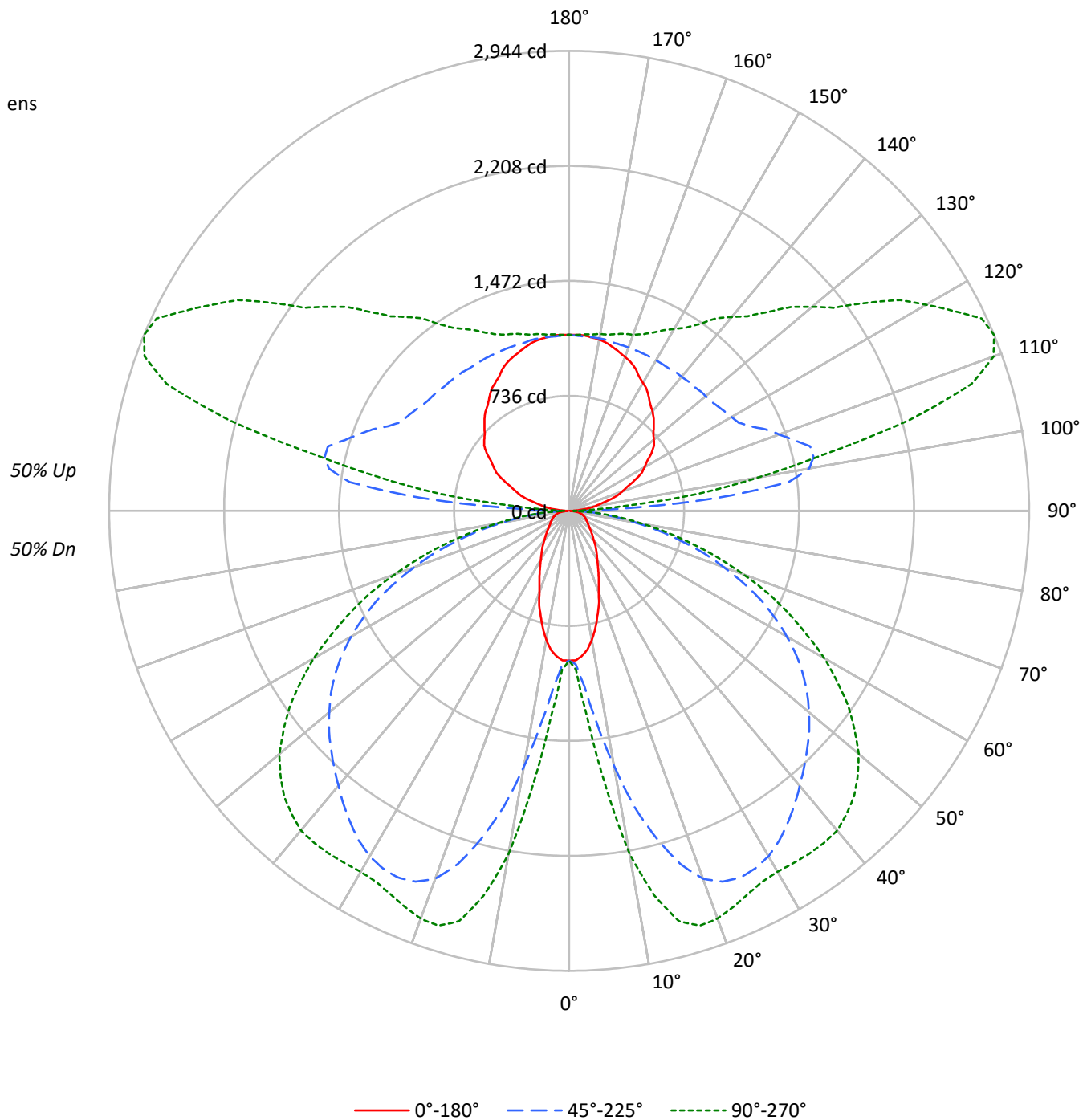
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14720.7 lumens
Efficiency: N/A
Efficacy: 107.0 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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CATALOG NUMBER: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-4000K

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	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°	4442	4442	4442
5°	4340	5135	5971
10°	3936	7485	9900
15°	3346	9778	11953
20°	2724	11331	12182
25°	2272	11858	11935
30°	1916	11933	11912
35°	1694	11735	12220
40°	1476	11477	12539
45°	1337	11288	12588
50°	1226	11119	12379
55°	1175	10870	11831
60°	1203	10392	10964
65°	1251	9667	9774
70°	1332	8430	8257
75°	1476	6874	6443
80°	1614	4767	4342
85°	1430	2529	2222

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12588 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	0.8
10°-20°	548.9	3.7
20°-30°	960.2	6.5
30°-40°	1236.0	8.4
40°-50°	1380.6	9.4
50°-60°	1322.3	9.0
60°-70°	1047.9	7.1
70°-80°	616.2	4.2
80°-90°	175.5	1.2
90°-100°	549.6	3.7
100°-110°	1444.9	9.8
110°-120°	1498.2	10.2
120°-130°	1201.8	8.2
130°-140°	943.0	6.4
140°-150°	723.8	4.9
150°-160°	521.2	3.5
160°-170°	318.9	2.2
170°-180°	107.7	0.7
0°-30°	1633.0	11.1
0°-40°	2869.0	19.5
0°-60°	5571.9	37.9
0°-90°	7411.5	50.3
90°-120°	3492.8	23.7
90°-150°	6361.3	43.2
90°-180°	7309.0	49.7
0°-180°	14720.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	933	1001	1127	1275	1321	86
15°	699	1290	2174	2635	2718	194
25°	446	1462	2589	2703	2706	206
35°	302	1398	2438	2577	2678	188
45°	206	1114	2155	2469	2580	160
55°	148	708	1829	2124	2183	135
65°	117	376	1358	1527	1549	116
75°	86	231	745	819	822	90
85°	31	71	185	203	206	33
90°	8	21	58	29	29	8
95°	73	284	947	488	332	81
105°	260	394	1597	2425	2262	276
115°	462	562	1280	2552	2913	457
125°	643	721	1164	1967	2320	571
135°	767	844	1128	1588	1800	593
145°	889	946	1113	1354	1460	557
155°	1005	1033	1113	1222	1258	462
165°	1084	1099	1113	1157	1171	306
175°	1128	1128	1121	1135	1135	107
180°	1128	1128	1128	1128	1128	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5	957.5
2.5°	957.5	957.5	963.7	966.8	972.9	975.9	982.1	988.3	1006.8	1009.9	1016.0
5°	932.8	945.2	985.2	1000.6	1043.7	1102.2	1126.9	1166.9	1249.9	1274.6	1290.0
7.5°	895.9	923.6	1022.2	1046.8	1154.5	1308.5	1373.1	1459.3	1591.7	1656.4	1708.8
10°	837.4	895.9	1071.4	1129.9	1305.4	1539.4	1659.5	1779.5	1979.6	2069.0	2102.8
12.5°	772.7	868.2	1123.8	1203.8	1456.2	1798.0	1942.7	2075.1	2302.9	2423.0	2441.5
15°	698.9	828.2	1173.0	1290.0	1616.3	2013.5	2173.6	2336.8	2549.3	2635.4	2657.0
17.5°	634.2	797.4	1219.2	1342.4	1739.5	2207.5	2370.6	2506.1	2678.5	2737.0	2752.4
20°	554.2	748.2	1249.9	1410.0	1868.8	2349.1	2506.1	2610.7	2727.8	2764.8	2770.8
22.5°	495.7	695.8	1268.5	1434.7	1955.0	2435.3	2567.7	2650.8	2730.8	2743.2	2746.3
25°	446.4	637.3	1265.4	1462.4	2028.9	2487.7	2589.3	2650.8	2697.0	2703.2	2703.2
27.5°	400.2	572.6	1253.0	1468.6	2084.3	2500.0	2580.0	2623.1	2644.7	2657.0	2657.0
30°	360.2	511.0	1222.3	1456.2	2109.0	2487.7	2552.3	2573.8	2595.4	2613.8	2623.1
32.5°	329.5	452.5	1176.1	1431.6	2112.0	2456.8	2503.0	2515.3	2546.2	2589.3	2604.7
35°	301.7	394.1	1123.8	1397.7	2093.5	2407.6	2438.4	2450.7	2512.2	2576.9	2598.5
37.5°	274.0	350.9	1056.0	1339.3	2065.9	2349.1	2370.6	2392.2	2487.7	2564.6	2589.3
40°	246.3	314.0	975.9	1274.6	2022.8	2278.3	2296.7	2330.6	2456.8	2546.2	2570.7
42.5°	224.8	283.3	889.8	1206.9	1967.4	2198.2	2226.0	2275.2	2419.9	2515.3	2543.1
45°	206.3	252.4	797.4	1114.5	1896.5	2115.1	2155.1	2222.9	2376.8	2469.2	2493.8
47.5°	187.8	230.9	702.0	1019.1	1819.5	2031.9	2084.3	2161.3	2318.3	2407.6	2429.2
50°	172.4	209.4	606.5	917.5	1736.4	1942.7	2004.3	2084.3	2244.4	2327.6	2355.2
52.5°	160.1	190.8	517.2	815.9	1641.0	1850.3	1921.2	2004.3	2155.1	2235.2	2253.6
55°	147.8	175.5	440.3	708.2	1542.5	1751.8	1828.8	1908.9	2056.6	2124.4	2136.6
57.5°	141.6	163.2	375.6	606.5	1437.8	1641.0	1727.2	1801.1	1939.6	1991.9	2004.3
60°	132.4	153.9	326.4	520.3	1323.9	1536.3	1610.1	1684.1	1801.1	1844.2	1853.4
62.5°	123.2	147.8	289.4	437.2	1206.9	1413.1	1487.1	1554.8	1653.3	1684.1	1696.4
65°	117.0	141.6	261.7	375.6	1086.8	1283.9	1357.7	1416.2	1496.3	1527.1	1533.2
67.5°	110.8	135.4	240.1	323.3	966.8	1154.5	1209.9	1265.4	1327.0	1357.7	1360.8
70°	101.6	129.4	221.7	286.4	843.6	1006.8	1052.9	1111.4	1160.7	1176.1	1185.3
72.5°	95.4	120.1	209.4	258.6	717.3	865.2	908.3	942.1	985.2	1000.6	1000.6
75°	86.2	107.8	197.0	230.9	588.1	708.2	745.1	778.9	812.8	818.9	809.8
77.5°	77.0	95.4	169.4	193.9	458.7	560.3	591.1	609.6	637.3	643.5	646.6
80°	64.7	83.1	132.4	150.8	332.5	412.5	434.1	449.5	474.1	474.1	480.3
82.5°	49.3	64.7	95.4	107.8	224.8	283.3	301.7	310.9	326.4	326.4	326.4
85°	30.7	40.0	61.6	70.8	135.4	172.4	184.7	187.8	200.1	203.2	203.2
87.5°	15.4	21.6	40.0	43.1	70.8	89.3	89.3	95.4	95.4	92.3	89.3
90°	7.5	13.6	19.6	21.2	33.3	49.4	57.5	51.1	38.3	28.7	28.7
92.5°	30.3	81.8	133.3	146.1	205.3	284.4	323.8	283.8	203.8	143.8	138.1
95°	72.7	166.8	261.0	284.5	505.2	799.5	946.7	844.8	640.9	488.1	470.8
97.5°	125.6	208.7	291.8	312.6	680.6	1171.2	1416.6	1352.2	1223.4	1126.8	1093.8
100°	166.5	241.8	317.2	336.0	744.4	1288.9	1561.1	1565.8	1575.2	1582.3	1543.0
102.5°	201.3	271.5	341.8	359.4	773.6	1325.8	1602.0	1684.0	1848.2	1971.3	1937.6
105°	260.3	319.8	379.3	394.2	795.3	1330.1	1597.4	1781.3	2149.3	2425.3	2407.2
107.5°	320.8	376.3	431.8	445.7	799.4	1270.9	1506.6	1763.2	2276.5	2661.3	2665.7
110°	361.7	411.8	461.9	474.5	793.3	1218.4	1430.9	1717.8	2291.6	2721.9	2740.7



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CATALOG NUMBER: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	401.8	449.5	497.4	509.3	793.6	1172.6	1362.1	1655.7	2242.9	2683.3	2712.3
115°	462.4	506.4	550.5	561.5	800.8	1120.0	1279.6	1562.5	2128.2	2552.4	2592.6
117.5°	522.1	562.2	602.2	612.2	815.8	1087.1	1222.8	1478.1	1988.6	2371.5	2416.0
120°	557.0	594.6	632.3	641.7	827.9	1076.1	1200.2	1433.4	1899.9	2249.7	2292.9
122.5°	591.0	629.0	667.0	676.5	845.2	1070.2	1182.7	1392.7	1812.8	2127.9	2170.6
125°	643.2	677.9	712.5	721.2	868.7	1065.5	1163.8	1342.3	1699.1	1966.7	2006.0
127.5°	685.6	720.5	755.5	764.3	892.2	1062.7	1148.0	1301.1	1607.5	1837.3	1870.4
130°	708.2	745.9	783.6	793.0	909.3	1064.4	1141.9	1278.2	1551.0	1755.6	1786.2
132.5°	731.7	769.4	807.0	816.5	923.2	1065.5	1136.6	1258.7	1502.8	1685.9	1713.3
135°	766.6	800.8	835.2	843.8	938.4	1064.5	1127.5	1229.7	1434.2	1587.6	1611.2
137.5°	802.1	836.0	870.1	878.5	961.0	1071.0	1125.9	1212.4	1385.3	1514.9	1534.3
140°	831.6	862.9	894.2	902.0	974.9	1072.1	1120.7	1195.4	1344.7	1456.7	1474.8
142.5°	854.3	883.3	912.2	919.4	986.5	1075.9	1120.7	1186.3	1317.4	1415.8	1431.4
145°	889.2	914.4	939.7	945.9	1001.7	1076.0	1113.1	1166.8	1274.0	1354.5	1366.3
147.5°	923.9	948.5	973.0	979.2	1023.9	1083.4	1113.1	1155.3	1239.7	1303.1	1312.8
150°	946.7	968.9	991.0	996.6	1035.4	1087.2	1113.1	1148.8	1220.1	1273.6	1281.5
152.5°	970.1	987.0	1003.8	1008.0	1043.0	1089.7	1113.1	1143.6	1204.5	1250.1	1256.1
155°	1004.9	1017.3	1029.8	1032.9	1059.6	1095.3	1113.1	1137.3	1185.8	1222.1	1226.0
157.5°	1030.6	1042.7	1054.9	1057.9	1076.3	1100.8	1113.1	1132.0	1169.6	1197.9	1200.6
160°	1048.1	1057.5	1066.9	1069.3	1083.9	1103.4	1113.1	1129.3	1161.6	1185.8	1187.4
162.5°	1065.5	1072.6	1079.6	1081.4	1091.9	1106.0	1113.1	1126.8	1154.0	1174.4	1176.0
165°	1084.4	1090.7	1097.1	1098.8	1103.6	1109.9	1113.1	1122.9	1142.4	1157.1	1158.7
167.5°	1101.8	1104.8	1107.8	1108.6	1112.6	1117.9	1120.7	1127.0	1139.9	1149.4	1150.1
170°	1113.1	1116.1	1119.2	1119.9	1120.2	1120.5	1120.7	1127.0	1139.9	1149.4	1149.4
172.5°	1119.2	1119.9	1120.5	1120.7	1120.7	1120.7	1120.7	1125.8	1135.9	1143.4	1142.9
175°	1127.5	1127.5	1127.5	1127.5	1125.2	1122.2	1120.7	1123.9	1130.2	1135.0	1135.0
177.5°	1127.5	1127.5	1127.5	1127.5	1125.8	1123.4	1122.2	1124.8	1129.8	1133.6	1133.0
180°	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	957.5	957.5
2.5°	1022.2	1016.0
5°	1314.6	1320.8
7.5°	1770.2	1767.2
10°	2201.3	2229.1
12.5°	2515.3	2521.5
15°	2706.3	2718.5
17.5°	2780.1	2783.2
20°	2783.2	2777.0
22.5°	2749.4	2743.2
25°	2709.4	2706.3
27.5°	2672.3	2675.4
30°	2657.0	2666.2
32.5°	2657.0	2672.3
35°	2663.1	2678.5
37.5°	2660.1	2678.5
40°	2647.8	2669.3
42.5°	2613.8	2629.3
45°	2561.5	2580.0
47.5°	2493.8	2506.1
50°	2407.6	2419.9
52.5°	2299.8	2302.9
55°	2170.5	2182.9
57.5°	2031.9	2035.0
60°	1878.0	1887.3
62.5°	1714.8	1714.8
65°	1542.5	1548.7
67.5°	1363.9	1379.3
70°	1182.3	1185.3
72.5°	1003.7	1003.7
75°	818.9	822.0
77.5°	643.5	643.5
80°	477.2	480.3
82.5°	329.5	335.6
85°	206.3	206.3
87.5°	95.4	86.2
90°	28.7	28.7
92.5°	115.3	92.3
95°	401.5	332.2
97.5°	961.9	830.1
100°	1386.0	1228.9
102.5°	1803.1	1668.5
105°	2334.9	2262.5
107.5°	2683.2	2700.7
110°	2816.1	2891.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2827.9	2943.6
115°	2752.9	2913.4
117.5°	2593.9	2771.8
120°	2465.8	2638.7
122.5°	2341.0	2511.5
125°	2163.0	2320.1
127.5°	2002.9	2135.5
130°	1908.6	2031.0
132.5°	1823.0	1932.6
135°	1705.8	1800.3
137.5°	1611.6	1689.0
140°	1547.0	1619.3
142.5°	1493.6	1555.8
145°	1413.4	1460.4
147.5°	1351.8	1390.8
150°	1313.1	1344.7
152.5°	1280.0	1303.8
155°	1241.8	1257.7
157.5°	1211.7	1222.8
160°	1193.8	1200.2
162.5°	1182.0	1188.1
165°	1165.1	1171.4
167.5°	1152.8	1155.5
170°	1149.4	1149.4
172.5°	1140.5	1138.1
175°	1135.0	1135.0
177.5°	1130.2	1127.5
180°	1127.5	1127.5



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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	6.22	7.12	7.16	8.09	9.35	19.40	20.30	20.34	21.27	22.53
	3H	6.93	7.74	7.88	8.72	10.00	21.24	22.05	22.20	23.03	24.31
	4H	7.23	8.00	8.20	8.98	10.27	21.89	22.66	22.86	23.64	24.93
	6H	7.48	8.19	8.46	9.18	10.48	22.32	23.03	23.30	24.02	25.32
	8H	7.55	8.23	8.54	9.23	10.53	22.44	23.12	23.43	24.12	25.43
	12H	7.57	8.21	8.56	9.21	10.54	22.51	23.16	23.51	24.15	25.48
4H	2H	13.44	14.21	14.42	15.19	16.48	19.68	20.45	20.65	21.43	22.72
	3H	15.01	15.65	16.00	16.66	17.97	21.73	22.37	22.71	23.38	24.69
	4H	15.11	15.70	16.10	16.70	18.03	22.49	23.08	23.49	24.09	25.42
	6H	15.12	15.63	16.13	16.66	17.98	23.04	23.55	24.04	24.57	25.90
	8H	15.10	15.57	16.11	16.59	17.94	23.20	23.68	24.21	24.70	26.04
	12H	15.06	15.49	16.09	16.52	17.87	23.30	23.73	24.32	24.76	26.11
8H	4H	16.56	17.03	17.56	18.05	19.40	22.56	23.03	23.57	24.06	25.40
	6H	16.80	17.19	17.83	18.26	19.60	23.19	23.58	24.22	24.65	25.99
	8H	16.82	17.17	17.86	18.21	19.57	23.41	23.76	24.45	24.81	26.17
	12H	16.79	17.10	17.84	18.14	19.54	23.56	23.86	24.60	24.91	26.31
12H	4H	16.70	17.13	17.73	18.17	19.52	22.51	22.94	23.54	23.98	25.33
	6H	17.06	17.41	18.10	18.45	19.82	23.17	23.52	24.22	24.57	25.93
	8H	17.13	17.44	18.18	18.48	19.88	23.41	23.71	24.45	24.75	26.16