

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: P938112

Luminaire Tested: SQ4-FB-125U-125D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938112
REPORT IS A COMBINATION OF REPORTS P933616 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-125D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

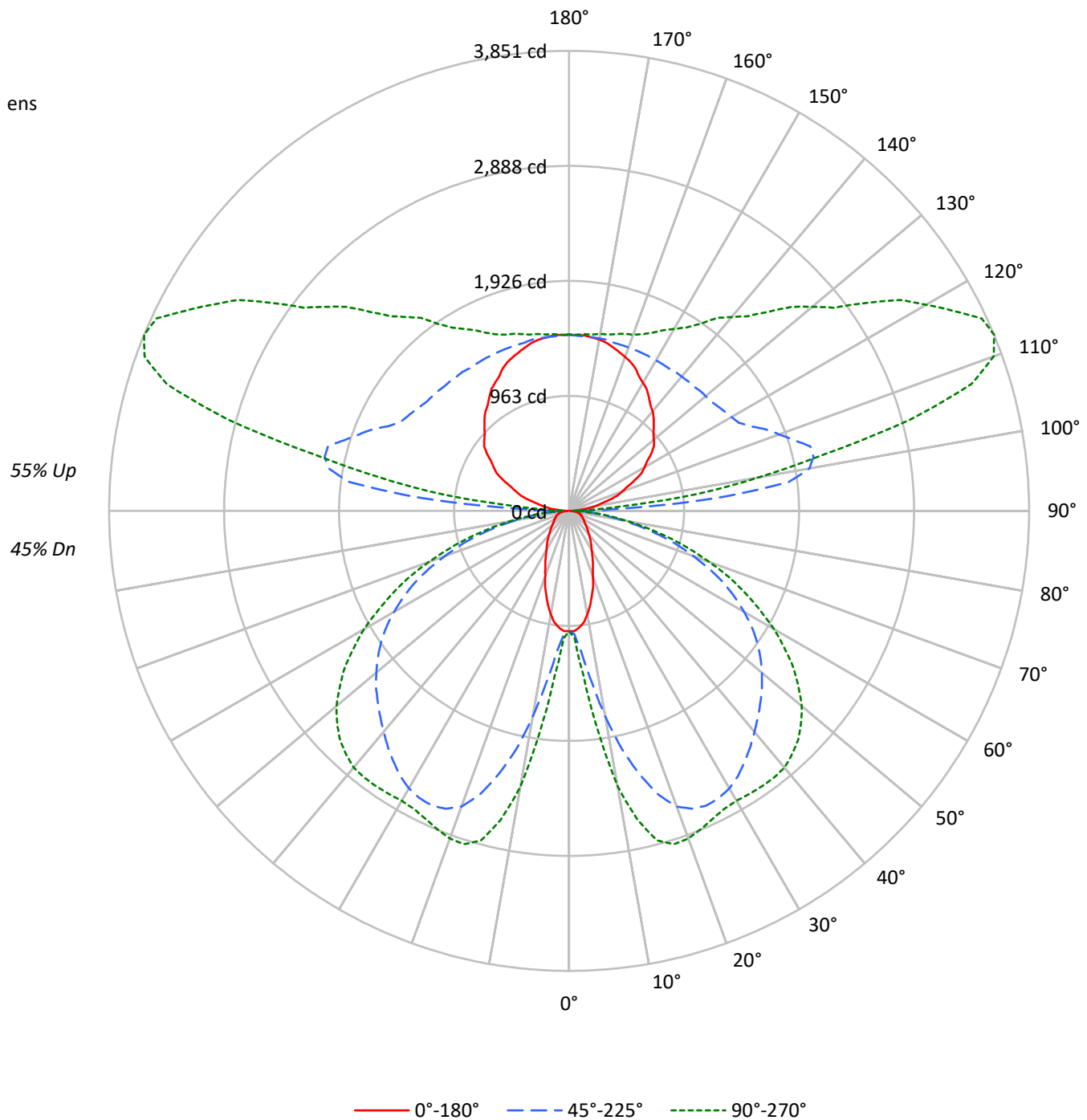
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17352.4 lumens
Efficiency: N/A
Efficacy: 115.4 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): 150.4
Input Voltage (V): NR
Input Current (Ain): 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				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	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42	37	37	37	37
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13	13	13	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4669	4669	4669
5°	4561	5396	6276
10°	4137	7866	10404
15°	3516	10277	12563
20°	2863	11909	12803
25°	2388	12463	12543
30°	2014	12541	12519
35°	1780	12333	12843
40°	1552	12062	13178
45°	1405	11864	13229
50°	1289	11686	13010
55°	1235	11424	12434
60°	1263	10922	11523
65°	1314	10160	10272
70°	1401	8860	8678
75°	1552	7225	6772
80°	1697	5010	4563
85°	1504	2659	2336

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	0.8
10°-20°	576.9	3.3
20°-30°	1009.1	5.8
30°-40°	1299.0	7.5
40°-50°	1451.0	8.4
50°-60°	1389.7	8.0
60°-70°	1101.3	6.3
70°-80°	647.6	3.7
80°-90°	185.6	1.1
90°-100°	719.0	4.1
100°-110°	1890.3	10.9
110°-120°	1960.0	11.3
120°-130°	1572.2	9.1
130°-140°	1233.6	7.1
140°-150°	946.8	5.5
150°-160°	681.9	3.9
160°-170°	417.2	2.4
170°-180°	141.0	0.8
0°-30°	1716.2	9.9
0°-40°	3015.2	17.4
0°-60°	5855.9	33.7
0°-90°	7790.4	44.9
90°-120°	4569.3	26.3
90°-150°	8322.0	48.0
90°-180°	9562.0	55.1
0°-180°	17352.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	980	1052	1184	1340	1388	90
15°	734	1356	2284	2770	2857	204
25°	469	1537	2721	2841	2844	216
35°	317	1469	2563	2708	2815	198
45°	217	1171	2265	2595	2712	168
55°	155	744	1922	2233	2294	142
65°	123	395	1427	1605	1628	122
75°	91	243	783	861	864	95
85°	32	74	194	214	217	34
90°	10	28	75	38	38	10
95°	95	372	1238	638	435	106
105°	340	516	2090	3173	2960	361
115°	605	734	1674	3339	3811	597
125°	842	943	1522	2573	3035	747
135°	1003	1104	1475	2077	2355	776
145°	1163	1237	1456	1772	1911	729
155°	1315	1351	1456	1599	1645	604
165°	1419	1437	1456	1514	1532	400
175°	1475	1475	1466	1485	1485	140
180°	1475	1475	1475	1475	1475	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3
2.5°	1006.3	1006.3	1012.8	1016.0	1022.4	1025.7	1032.2	1038.7	1058.1	1061.4	1067.8
5°	980.4	993.4	1035.4	1051.6	1096.9	1158.4	1184.3	1226.4	1313.6	1339.5	1355.7
7.5°	941.6	970.7	1074.3	1100.2	1213.4	1375.2	1443.1	1533.7	1672.8	1740.8	1795.8
10°	880.1	941.6	1126.0	1187.4	1372.0	1617.8	1744.0	1870.2	2080.5	2174.4	2210.0
12.5°	812.1	912.5	1181.0	1265.2	1530.5	1889.6	2041.7	2180.8	2420.3	2546.5	2565.9
15°	734.5	870.4	1232.8	1355.7	1698.7	2116.1	2284.4	2455.9	2679.2	2769.7	2792.4
17.5°	666.5	838.0	1281.3	1410.8	1828.2	2320.0	2491.4	2633.9	2815.0	2876.5	2892.7
20°	582.4	786.3	1313.6	1481.9	1964.1	2468.9	2633.9	2743.8	2866.9	2905.7	2912.1
22.5°	520.9	731.2	1333.1	1507.8	2054.6	2559.4	2698.6	2785.9	2870.0	2883.0	2886.3
25°	469.2	669.8	1329.9	1537.0	2132.4	2614.5	2721.3	2785.9	2834.4	2840.9	2840.9
27.5°	420.6	601.8	1316.9	1543.5	2190.6	2627.4	2711.5	2756.8	2779.5	2792.4	2792.4
30°	378.6	537.1	1284.6	1530.5	2216.5	2614.5	2682.3	2705.0	2727.7	2747.1	2756.8
32.5°	346.3	475.6	1236.0	1504.6	2219.6	2582.1	2630.6	2643.5	2675.9	2721.3	2737.4
35°	317.1	414.1	1181.0	1469.0	2200.2	2530.3	2562.7	2575.6	2640.3	2708.3	2730.9
37.5°	287.9	368.8	1109.8	1407.5	2171.2	2468.9	2491.4	2514.1	2614.5	2695.3	2721.3
40°	258.9	330.0	1025.7	1339.5	2125.9	2394.4	2413.8	2449.4	2582.1	2675.9	2701.8
42.5°	236.2	297.7	935.2	1268.4	2067.6	2310.3	2339.4	2391.1	2543.2	2643.5	2672.7
45°	216.8	265.3	838.0	1171.3	1993.2	2222.9	2265.0	2336.2	2497.9	2595.1	2620.9
47.5°	197.4	242.6	737.7	1071.0	1912.3	2135.5	2190.6	2271.5	2436.5	2530.3	2553.0
50°	181.2	220.1	637.5	964.2	1824.9	2041.7	2106.5	2190.6	2358.8	2446.2	2475.3
52.5°	168.3	200.6	543.6	857.4	1724.6	1944.6	2019.1	2106.5	2265.0	2349.1	2368.5
55°	155.4	184.4	462.7	744.2	1621.1	1841.1	1922.0	2006.2	2161.4	2232.6	2245.5
57.5°	148.8	171.5	394.7	637.5	1511.1	1724.6	1815.3	1892.9	2038.5	2093.4	2106.5
60°	139.1	161.8	343.0	546.8	1391.4	1614.6	1692.2	1769.9	1892.9	1938.2	1947.8
62.5°	129.4	155.4	304.2	459.5	1268.4	1485.1	1562.9	1634.0	1737.5	1769.9	1782.8
65°	122.9	148.8	275.0	394.7	1142.2	1349.3	1426.9	1488.4	1572.5	1604.9	1611.3
67.5°	116.4	142.3	252.4	339.8	1016.0	1213.4	1271.6	1329.9	1394.6	1426.9	1430.2
70°	106.8	135.9	233.0	300.9	886.6	1058.1	1106.6	1168.0	1219.9	1236.0	1245.8
72.5°	100.3	126.2	220.1	271.8	753.9	909.3	954.6	990.1	1035.4	1051.6	1051.6
75°	90.6	113.3	207.1	242.6	618.1	744.2	783.1	818.6	854.2	860.7	851.0
77.5°	80.9	100.3	178.0	203.8	482.1	588.9	621.2	640.7	669.8	676.3	679.5
80°	68.0	87.4	139.1	158.5	349.4	433.5	456.2	472.5	498.3	498.3	504.8
82.5°	51.8	68.0	100.3	113.3	236.2	297.7	317.1	326.8	343.0	343.0	343.0
85°	32.3	42.1	64.7	74.4	142.3	181.2	194.2	197.4	210.3	213.6	213.6
87.5°	16.2	22.7	42.1	45.3	74.4	93.9	93.9	100.3	100.3	97.0	93.9
90°	9.9	17.9	25.7	27.7	43.6	64.7	75.2	66.8	50.1	37.6	37.6
92.5°	39.6	106.9	174.3	191.1	268.6	372.0	423.7	371.3	266.6	188.0	180.6
95°	95.0	218.3	341.5	372.3	661.0	1046.0	1238.4	1105.1	838.5	638.5	615.9
97.5°	164.3	273.0	381.7	408.9	890.3	1532.3	1853.2	1769.0	1600.4	1474.1	1430.9
100°	217.8	316.3	414.9	439.6	973.8	1686.1	2042.3	2048.4	2060.8	2070.0	2018.7
102.5°	263.3	355.2	447.2	470.3	1012.1	1734.6	2095.7	2203.1	2417.8	2578.8	2534.8
105°	340.5	418.4	496.3	515.8	1040.4	1740.0	2089.8	2330.4	2811.8	3172.8	3149.2
107.5°	419.8	492.3	564.9	583.1	1045.7	1662.6	1971.0	2306.7	2978.1	3481.7	3487.4
110°	473.2	538.8	604.4	620.7	1037.8	1593.9	1872.0	2247.4	2997.9	3560.8	3585.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	525.7	588.1	650.7	666.2	1038.1	1534.0	1781.9	2166.0	2934.2	3510.3	3548.2
115°	604.9	662.5	720.1	734.5	1047.7	1465.3	1674.1	2044.0	2784.1	3339.1	3391.6
117.5°	683.1	735.5	787.7	800.8	1067.2	1422.2	1599.8	1933.7	2601.6	3102.5	3160.7
120°	728.6	777.9	827.1	839.5	1083.0	1407.7	1570.0	1875.2	2485.4	2943.1	2999.6
122.5°	773.1	822.8	872.5	885.0	1105.7	1400.1	1547.3	1822.0	2371.6	2783.8	2839.5
125°	841.5	886.8	932.1	943.4	1136.4	1393.8	1522.5	1756.0	2222.8	2572.9	2624.2
127.5°	896.9	942.7	988.4	999.9	1167.2	1390.2	1501.8	1702.2	2103.0	2403.6	2446.9
130°	926.6	975.9	1025.1	1037.5	1189.6	1392.4	1493.8	1672.2	2029.1	2296.7	2336.8
132.5°	957.2	1006.6	1055.8	1068.1	1207.7	1393.8	1486.9	1646.6	1966.0	2205.6	2241.4
135°	1002.8	1047.7	1092.6	1103.8	1227.5	1392.5	1475.0	1608.8	1876.2	2076.9	2107.8
137.5°	1049.3	1093.8	1138.2	1149.3	1257.2	1401.1	1473.0	1586.1	1812.3	1981.9	2007.2
140°	1087.9	1128.8	1169.8	1180.0	1275.4	1402.5	1466.1	1563.8	1759.1	1905.7	1929.3
142.5°	1117.7	1155.5	1193.3	1202.7	1290.5	1407.6	1466.1	1551.9	1723.5	1852.2	1872.5
145°	1163.2	1196.1	1229.2	1237.4	1310.4	1407.6	1456.2	1526.3	1666.8	1772.0	1787.4
147.5°	1208.8	1240.9	1273.0	1281.0	1339.5	1417.3	1456.2	1511.4	1621.9	1704.7	1717.5
150°	1238.4	1267.5	1296.5	1303.8	1354.6	1422.3	1456.2	1502.8	1596.1	1666.1	1676.4
152.5°	1269.1	1291.1	1313.1	1318.6	1364.5	1425.6	1456.2	1496.0	1575.7	1635.4	1643.3
155°	1314.7	1330.9	1347.2	1351.3	1386.3	1432.9	1456.2	1487.9	1551.3	1598.8	1604.0
157.5°	1348.3	1364.1	1380.0	1383.9	1408.0	1440.1	1456.2	1480.8	1530.1	1567.1	1570.7
160°	1371.1	1383.4	1395.8	1398.8	1417.9	1443.5	1456.2	1477.3	1519.6	1551.2	1553.3
162.5°	1393.8	1403.0	1412.3	1414.6	1428.5	1446.9	1456.2	1474.0	1509.6	1536.4	1538.4
165°	1418.6	1427.0	1435.3	1437.4	1443.7	1452.0	1456.2	1469.0	1494.5	1513.6	1515.7
167.5°	1441.4	1445.3	1449.3	1450.3	1455.5	1462.6	1466.1	1474.4	1491.2	1503.7	1504.6
170°	1456.2	1460.2	1464.2	1465.2	1465.5	1465.9	1466.1	1474.4	1491.2	1503.7	1503.7
172.5°	1464.1	1465.0	1465.9	1466.1	1466.1	1466.1	1466.1	1472.7	1485.9	1495.9	1495.1
175°	1475.0	1475.0	1475.0	1475.0	1472.0	1468.1	1466.1	1470.3	1478.6	1485.0	1485.0
177.5°	1475.0	1475.0	1475.0	1475.0	1472.7	1469.7	1468.1	1471.4	1478.0	1482.9	1482.1
180°	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1006.3	1006.3
2.5°	1074.3	1067.8
5°	1381.6	1388.1
7.5°	1860.5	1857.3
10°	2313.5	2342.7
12.5°	2643.5	2650.0
15°	2844.2	2857.1
17.5°	2921.8	2925.1
20°	2925.1	2918.6
22.5°	2889.5	2883.0
25°	2847.4	2844.2
27.5°	2808.5	2811.8
30°	2792.4	2802.1
32.5°	2792.4	2808.5
35°	2798.9	2815.0
37.5°	2795.6	2815.0
40°	2782.7	2805.4
42.5°	2747.1	2763.3
45°	2692.1	2711.5
47.5°	2620.9	2633.9
50°	2530.3	2543.2
52.5°	2417.1	2420.3
55°	2281.1	2294.1
57.5°	2135.5	2138.8
60°	1973.8	1983.5
62.5°	1802.3	1802.3
65°	1621.1	1627.6
67.5°	1433.4	1449.6
70°	1242.5	1245.8
72.5°	1054.9	1054.9
75°	860.7	863.9
77.5°	676.3	676.3
80°	501.5	504.8
82.5°	346.3	352.7
85°	216.8	216.8
87.5°	100.3	90.6
90°	37.6	37.6
92.5°	150.7	120.7
95°	525.2	434.6
97.5°	1258.5	1086.0
100°	1813.1	1607.7
102.5°	2358.8	2182.8
105°	3054.5	2960.0
107.5°	3510.2	3533.1
110°	3684.0	3782.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3699.5	3850.9
115°	3601.4	3811.3
117.5°	3393.4	3626.2
120°	3225.8	3451.9
122.5°	3062.6	3285.7
125°	2829.8	3035.2
127.5°	2620.3	2793.6
130°	2496.9	2657.0
132.5°	2384.9	2528.3
135°	2231.5	2355.1
137.5°	2108.4	2209.6
140°	2023.9	2118.5
142.5°	1953.9	2035.3
145°	1849.0	1910.6
147.5°	1768.5	1819.6
150°	1717.8	1759.1
152.5°	1674.4	1705.7
155°	1624.6	1645.3
157.5°	1585.2	1599.8
160°	1561.6	1570.0
162.5°	1546.3	1554.3
165°	1524.1	1532.5
167.5°	1508.1	1511.6
170°	1503.7	1503.7
172.5°	1491.9	1488.9
175°	1485.0	1485.0
177.5°	1478.5	1475.0
180°	1475.0	1475.0



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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	5.87	6.72	6.87	7.73	9.07	19.05	19.90	20.04	20.91	22.25
	3H	6.58	7.34	7.58	8.36	9.72	20.89	21.66	21.89	22.67	24.03
	4H	6.88	7.60	7.89	8.62	9.99	21.54	22.26	22.55	23.28	24.65
	6H	7.13	7.79	8.15	8.82	10.20	21.97	22.63	22.99	23.66	25.04
	8H	7.19	7.83	8.23	8.87	10.25	22.09	22.72	23.12	23.77	25.14
	12H	7.21	7.82	8.25	8.85	10.25	22.15	22.76	23.19	23.80	25.20
4H	2H	13.09	13.81	14.11	14.83	16.20	19.33	20.05	20.35	21.07	22.44
	3H	14.65	15.26	15.69	16.31	17.69	21.37	21.98	22.40	23.03	24.41
	4H	14.75	15.31	15.79	16.35	17.75	22.14	22.69	23.18	23.73	25.14
	6H	14.76	15.24	15.81	16.30	17.70	22.68	23.16	23.72	24.22	25.62
	8H	14.74	15.18	15.79	16.24	17.66	22.84	23.29	23.89	24.34	25.76
	12H	14.69	15.10	15.76	16.17	17.59	22.93	23.34	24.00	24.41	25.83
8H	4H	16.19	16.64	17.24	17.70	19.11	22.20	22.64	23.25	23.70	25.12
	6H	16.43	16.81	17.51	17.90	19.32	22.83	23.20	23.90	24.30	25.71
	8H	16.45	16.78	17.53	17.86	19.29	23.05	23.37	24.13	24.45	25.89
	12H	16.42	16.71	17.51	17.79	19.26	23.19	23.48	24.27	24.55	26.03
12H	4H	16.34	16.74	17.40	17.81	19.23	22.15	22.55	23.22	23.63	25.05
	6H	16.69	17.02	17.77	18.10	19.53	22.81	23.14	23.89	24.22	25.65
	8H	16.76	17.05	17.85	18.13	19.60	23.04	23.33	24.12	24.40	25.87