

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: P937747

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937747
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-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

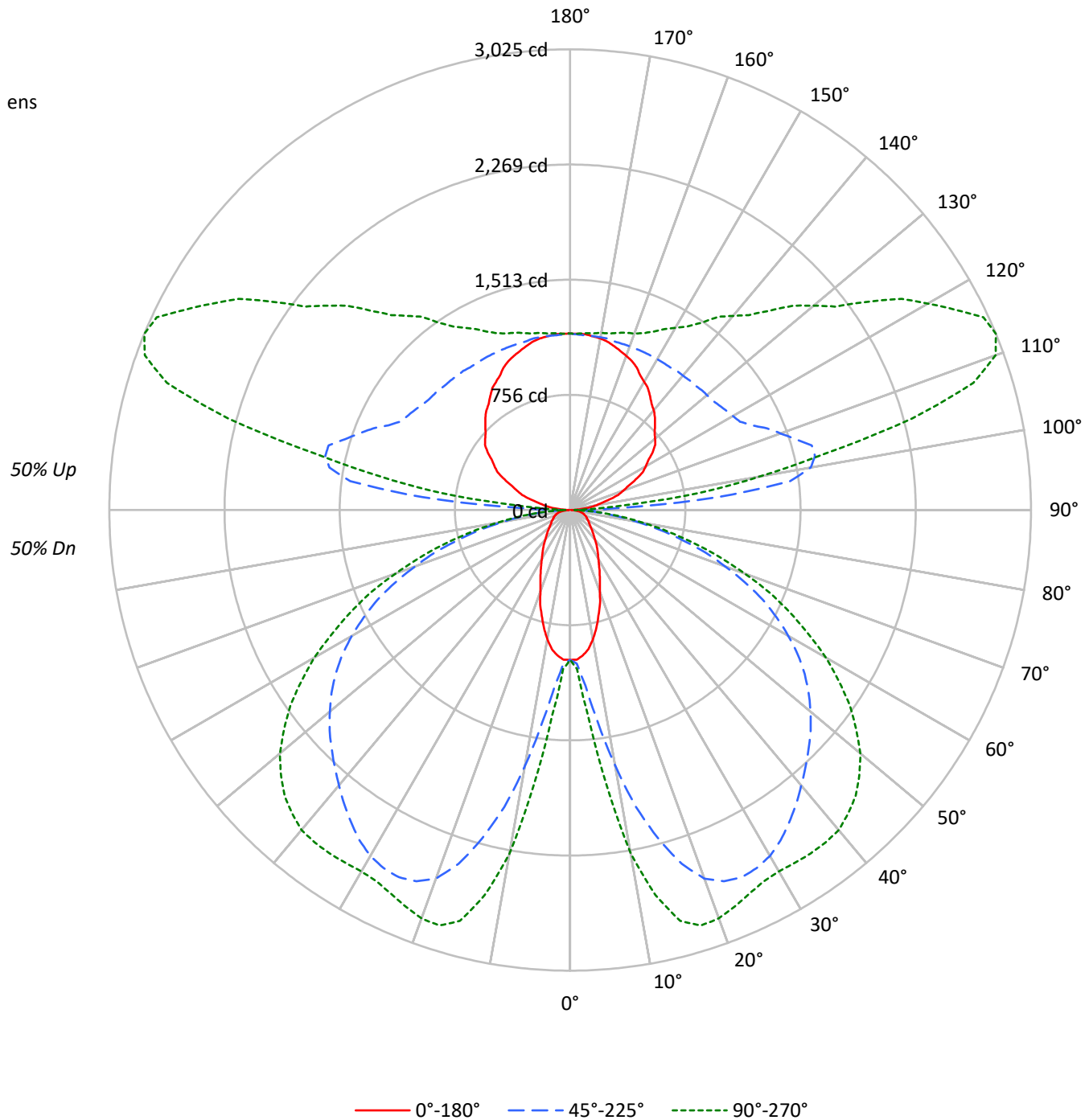
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15126.4 lumens
Efficiency: N/A
Efficacy: 109.9 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 (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	
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	50				
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41				
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	34				
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	28				
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	23				
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20				
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17				
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	15				
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13				
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11				
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4565	4565	4565
5°	4459	5276	6136
10°	4045	7691	10172
15°	3438	10048	12283
20°	2799	11644	12518
25°	2335	12185	12264
30°	1969	12262	12241
35°	1741	12058	12557
40°	1517	11793	12885
45°	1374	11599	12935
50°	1260	11425	12721
55°	1207	11170	12157
60°	1235	10679	11266
65°	1285	9933	10043
70°	1369	8663	8484
75°	1517	7064	6621
80°	1659	4898	4461
85°	1472	2599	2284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12935 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.3	0.8
10°-20°	564.1	3.7
20°-30°	986.6	6.5
30°-40°	1270.1	8.4
40°-50°	1418.6	9.4
50°-60°	1358.7	9.0
60°-70°	1076.8	7.1
70°-80°	633.2	4.2
80°-90°	180.3	1.2
90°-100°	564.8	3.7
100°-110°	1484.7	9.8
110°-120°	1539.5	10.2
120°-130°	1234.9	8.2
130°-140°	968.9	6.4
140°-150°	743.7	4.9
150°-160°	535.6	3.5
160°-170°	327.7	2.2
170°-180°	110.7	0.7
0°-30°	1678.0	11.1
0°-40°	2948.0	19.5
0°-60°	5725.4	37.9
0°-90°	7615.7	50.3
90°-120°	3589.0	23.7
90°-150°	6536.6	43.2
90°-180°	7511.0	49.7
0°-180°	15126.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	958	1028	1158	1310	1357	88
15°	718	1326	2234	2708	2794	200
25°	459	1503	2661	2778	2781	211
35°	310	1436	2506	2648	2752	194
45°	212	1145	2214	2537	2651	164
55°	152	728	1879	2183	2243	138
65°	120	386	1395	1569	1591	119
75°	89	237	766	842	845	93
85°	32	73	190	209	212	34
90°	8	22	59	30	30	9
95°	75	292	973	502	341	83
105°	268	405	1641	2492	2325	284
115°	475	577	1315	2623	2994	469
125°	661	741	1196	2021	2384	587
135°	788	867	1159	1631	1850	609
145°	914	972	1144	1392	1501	572
155°	1033	1061	1144	1256	1292	474
165°	1114	1129	1144	1189	1204	314
175°	1159	1159	1152	1166	1166	110
180°	1159	1159	1159	1159	1159	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9
2.5°	983.9	983.9	990.2	993.4	999.7	1002.8	1009.2	1015.6	1034.5	1037.7	1044.0
5°	958.5	971.3	1012.4	1028.2	1072.5	1132.6	1157.9	1199.0	1284.4	1309.7	1325.5
7.5°	920.6	949.1	1050.3	1075.7	1186.3	1344.6	1410.9	1499.5	1635.5	1702.0	1755.8
10°	860.5	920.6	1100.9	1161.0	1341.4	1581.8	1705.2	1828.6	2034.2	2126.0	2160.8
12.5°	794.0	892.2	1154.7	1237.0	1496.4	1847.5	1996.3	2132.3	2366.4	2489.8	2508.8
15°	718.1	851.0	1205.3	1325.5	1660.9	2069.0	2233.5	2401.2	2619.5	2708.0	2730.2
17.5°	651.7	819.4	1252.8	1379.3	1787.4	2268.3	2435.9	2575.2	2752.3	2812.4	2828.2
20°	569.4	768.8	1284.4	1448.9	1920.4	2413.9	2575.2	2682.7	2803.0	2840.9	2847.2
22.5°	509.3	715.0	1303.4	1474.2	2008.9	2502.4	2638.5	2723.8	2806.1	2818.8	2822.0
25°	458.8	654.9	1300.3	1502.7	2084.9	2556.2	2660.6	2723.8	2771.3	2777.7	2777.7
27.5°	411.3	588.4	1287.6	1509.1	2141.8	2568.9	2651.1	2695.4	2717.6	2730.2	2730.2
30°	370.1	525.1	1256.0	1496.4	2167.1	2556.2	2622.6	2644.8	2666.9	2685.9	2695.4
32.5°	338.6	465.0	1208.5	1471.0	2170.2	2524.5	2572.0	2584.6	2616.3	2660.6	2676.4
35°	310.0	404.9	1154.7	1436.3	2151.2	2474.0	2505.6	2518.2	2581.5	2647.9	2670.1
37.5°	281.5	360.6	1085.1	1376.2	2122.8	2413.9	2435.9	2458.1	2556.2	2635.3	2660.6
40°	253.1	322.7	1002.8	1309.7	2078.5	2341.1	2360.0	2394.8	2524.5	2616.3	2641.6
42.5°	231.0	291.1	914.3	1240.2	2021.6	2258.8	2287.3	2337.9	2486.6	2584.6	2613.2
45°	212.0	259.4	819.4	1145.2	1948.8	2173.4	2214.5	2284.1	2442.3	2537.3	2562.5
47.5°	193.0	237.2	721.3	1047.2	1869.7	2087.9	2141.8	2220.9	2382.2	2474.0	2496.1
50°	177.1	215.2	623.3	942.7	1784.3	1996.3	2059.5	2141.8	2306.3	2391.7	2420.1
52.5°	164.5	196.1	531.5	838.3	1686.2	1901.3	1974.1	2059.5	2214.5	2296.8	2315.7
55°	151.9	180.3	452.4	727.7	1585.0	1800.1	1879.2	1961.5	2113.3	2182.9	2195.5
57.5°	145.5	167.7	385.9	623.3	1477.4	1686.2	1774.8	1850.7	1993.1	2046.8	2059.5
60°	136.0	158.2	335.4	534.7	1360.4	1578.6	1654.5	1730.5	1850.7	1895.0	1904.5
62.5°	126.6	151.9	297.4	449.2	1240.2	1452.1	1528.1	1597.6	1698.8	1730.5	1743.1
65°	120.2	145.5	268.9	385.9	1116.8	1319.2	1395.1	1455.2	1537.5	1569.2	1575.4
67.5°	113.8	139.2	246.8	332.2	993.4	1186.3	1243.3	1300.3	1363.5	1395.1	1398.3
70°	104.4	132.9	227.8	294.2	866.8	1034.5	1081.9	1142.0	1192.7	1208.5	1218.0
72.5°	98.1	123.4	215.2	265.7	737.1	889.0	933.3	968.1	1012.4	1028.2	1028.2
75°	88.6	110.8	202.5	237.2	604.3	727.7	765.6	800.4	835.2	841.5	832.1
77.5°	79.1	98.1	174.0	199.3	471.4	575.8	607.4	626.4	654.9	661.2	664.4
80°	66.5	85.4	136.0	155.0	341.6	423.9	446.0	461.9	487.2	487.2	493.5
82.5°	50.7	66.5	98.1	110.8	231.0	291.1	310.0	319.5	335.4	335.4	335.4
85°	31.6	41.1	63.3	72.7	139.2	177.1	189.8	193.0	205.6	208.8	208.8
87.5°	15.8	22.2	41.1	44.3	72.7	91.8	91.8	98.1	98.1	94.9	91.8
90°	7.8	14.0	20.2	21.8	34.2	50.8	59.1	52.5	39.4	29.5	29.5
92.5°	31.1	84.0	136.9	150.1	211.0	292.2	332.8	291.6	209.5	147.8	141.9
95°	74.7	171.4	268.2	292.4	519.1	821.5	972.7	868.1	658.6	501.6	483.8
97.5°	129.1	214.4	299.9	321.2	699.3	1203.5	1455.6	1389.4	1257.1	1157.8	1124.0
100°	171.1	248.4	325.9	345.3	764.9	1324.4	1604.1	1609.0	1618.6	1625.9	1585.5
102.5°	206.9	279.0	351.3	369.3	794.9	1362.3	1646.1	1730.4	1899.1	2025.6	1991.0
105°	267.5	328.6	389.8	405.1	817.2	1366.7	1641.4	1830.4	2208.5	2492.1	2473.5
107.5°	329.7	386.7	443.7	458.0	821.4	1305.9	1548.2	1811.8	2339.2	2734.7	2739.2
110°	371.6	423.1	474.6	487.5	815.2	1251.9	1470.4	1765.2	2354.7	2796.9	2816.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	412.9	461.9	511.1	523.3	815.4	1204.9	1399.6	1701.4	2304.7	2757.3	2787.0
115°	475.1	520.4	565.7	577.0	822.9	1150.9	1314.9	1605.5	2186.8	2622.8	2664.0
117.5°	536.5	577.6	618.8	629.1	838.2	1117.1	1256.5	1518.8	2043.5	2436.9	2482.6
120°	572.3	611.0	649.7	659.3	850.7	1105.8	1233.3	1472.9	1952.2	2311.7	2356.1
122.5°	607.3	646.3	685.4	695.1	868.5	1099.7	1215.3	1431.1	1862.8	2186.6	2230.4
125°	660.9	696.5	732.2	741.0	892.6	1094.8	1195.9	1379.3	1745.9	2020.9	2061.3
127.5°	704.5	740.4	776.4	785.3	916.8	1092.0	1179.6	1337.0	1651.8	1887.9	1921.9
130°	727.8	766.5	805.2	814.9	934.3	1093.7	1173.3	1313.4	1593.8	1804.0	1835.4
132.5°	751.9	790.6	829.3	839.0	948.6	1094.8	1167.9	1293.4	1544.2	1732.4	1760.5
135°	787.7	822.9	858.2	867.0	964.2	1093.8	1158.6	1263.6	1473.8	1631.3	1655.6
137.5°	824.2	859.1	894.0	902.7	987.5	1100.5	1157.0	1245.8	1423.5	1556.7	1576.6
140°	854.5	886.7	918.8	926.9	1001.7	1101.6	1151.6	1228.3	1381.8	1496.8	1515.4
142.5°	877.9	907.6	937.3	944.7	1013.7	1105.6	1151.6	1219.0	1353.7	1454.9	1470.9
145°	913.7	939.6	965.6	972.0	1029.3	1105.7	1143.8	1198.9	1309.1	1391.9	1403.9
147.5°	949.4	974.6	999.9	1006.2	1052.1	1113.2	1143.8	1187.2	1273.9	1339.0	1349.0
150°	972.7	995.6	1018.4	1024.1	1064.0	1117.2	1143.8	1180.4	1253.7	1308.7	1316.8
152.5°	996.9	1014.2	1031.4	1035.7	1071.7	1119.8	1143.8	1175.1	1237.6	1284.6	1290.7
155°	1032.6	1045.4	1058.2	1061.4	1088.8	1125.5	1143.8	1168.7	1218.5	1255.8	1259.8
157.5°	1059.0	1071.5	1084.0	1087.1	1105.9	1131.2	1143.8	1163.1	1201.8	1230.9	1233.7
160°	1077.0	1086.7	1096.3	1098.7	1113.8	1133.8	1143.8	1160.4	1193.6	1218.5	1220.2
162.5°	1094.8	1102.1	1109.4	1111.2	1122.0	1136.5	1143.8	1157.8	1185.8	1206.8	1208.4
165°	1114.3	1120.8	1127.3	1129.0	1134.0	1140.5	1143.8	1153.8	1173.9	1188.9	1190.6
167.5°	1132.1	1135.2	1138.4	1139.1	1143.2	1148.8	1151.6	1158.1	1171.3	1181.1	1181.7
170°	1143.8	1146.9	1150.1	1150.8	1151.1	1151.4	1151.6	1158.1	1171.3	1181.1	1181.1
172.5°	1150.1	1150.7	1151.4	1151.6	1151.6	1151.6	1151.6	1156.8	1167.2	1174.9	1174.4
175°	1158.6	1158.6	1158.6	1158.6	1156.2	1153.1	1151.6	1154.8	1161.4	1166.3	1166.3
177.5°	1158.6	1158.6	1158.6	1158.6	1156.8	1154.4	1153.1	1155.8	1160.9	1164.8	1164.2
180°	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	983.9	983.9
2.5°	1050.3	1044.0
5°	1350.8	1357.2
7.5°	1819.0	1815.9
10°	2262.0	2290.5
12.5°	2584.6	2591.0
15°	2780.8	2793.5
17.5°	2856.7	2859.9
20°	2859.9	2853.6
22.5°	2825.1	2818.8
25°	2784.0	2780.8
27.5°	2746.0	2749.2
30°	2730.2	2739.7
32.5°	2730.2	2746.0
35°	2736.5	2752.3
37.5°	2733.4	2752.3
40°	2720.7	2742.9
42.5°	2685.9	2701.8
45°	2632.1	2651.1
47.5°	2562.5	2575.2
50°	2474.0	2486.6
52.5°	2363.2	2366.4
55°	2230.3	2243.0
57.5°	2087.9	2091.1
60°	1929.8	1939.3
62.5°	1762.1	1762.1
65°	1585.0	1591.3
67.5°	1401.5	1417.3
70°	1214.8	1218.0
72.5°	1031.4	1031.4
75°	841.5	844.7
77.5°	661.2	661.2
80°	490.3	493.5
82.5°	338.6	344.8
85°	212.0	212.0
87.5°	98.1	88.6
90°	29.5	29.5
92.5°	118.4	94.9
95°	412.6	341.4
97.5°	988.5	853.0
100°	1424.2	1262.8
102.5°	1852.8	1714.5
105°	2399.2	2324.9
107.5°	2757.2	2775.1
110°	2893.7	2971.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2905.8	3024.7
115°	2828.8	2993.7
117.5°	2665.4	2848.2
120°	2533.8	2711.4
122.5°	2405.6	2580.7
125°	2222.6	2384.1
127.5°	2058.1	2194.3
130°	1961.2	2087.0
132.5°	1873.2	1985.9
135°	1752.8	1849.9
137.5°	1656.0	1735.6
140°	1589.7	1664.0
142.5°	1534.8	1598.7
145°	1452.3	1500.7
147.5°	1389.1	1429.2
150°	1349.2	1381.8
152.5°	1315.2	1339.7
155°	1276.1	1292.3
157.5°	1245.1	1256.5
160°	1226.7	1233.3
162.5°	1214.6	1220.8
165°	1197.2	1203.7
167.5°	1184.6	1187.4
170°	1181.1	1181.1
172.5°	1171.9	1169.5
175°	1166.3	1166.3
177.5°	1161.4	1158.6
180°	1158.6	1158.6



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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	6.31	7.21	7.26	8.18	9.45	19.49	20.39	20.44	21.36	22.63
	3H	7.02	7.83	7.98	8.81	10.10	21.33	22.15	22.29	23.12	24.41
	4H	7.32	8.09	8.29	9.07	10.37	21.98	22.75	22.95	23.73	25.03
	6H	7.57	8.28	8.56	9.27	10.58	22.41	23.12	23.40	24.11	25.42
	8H	7.64	8.32	8.63	9.32	10.63	22.54	23.21	23.52	24.22	25.52
	12H	7.66	8.31	8.66	9.30	10.63	22.61	23.25	23.60	24.25	25.58
4H	2H	13.53	14.30	14.51	15.28	16.58	19.77	20.54	20.75	21.52	22.81
	3H	15.10	15.75	16.09	16.76	18.07	21.82	22.46	22.81	23.47	24.78
	4H	15.20	15.79	16.20	16.79	18.13	22.59	23.18	23.59	24.18	25.51
	6H	15.21	15.72	16.22	16.75	18.08	23.13	23.64	24.14	24.67	26.00
	8H	15.19	15.67	16.20	16.69	18.03	23.29	23.77	24.30	24.79	26.13
	12H	15.15	15.58	16.18	16.62	17.97	23.39	23.82	24.42	24.86	26.21
8H	4H	16.65	17.13	17.66	18.15	19.49	22.65	23.13	23.66	24.15	25.49
	6H	16.89	17.29	17.93	18.35	19.69	23.28	23.68	24.32	24.74	26.08
	8H	16.91	17.26	17.95	18.31	19.67	23.50	23.85	24.55	24.90	26.26
	12H	16.88	17.19	17.93	18.23	19.64	23.65	23.96	24.70	25.00	26.40
12H	4H	16.80	17.23	17.82	18.26	19.61	22.61	23.04	23.64	24.07	25.42
	6H	17.15	17.50	18.20	18.55	19.91	23.27	23.62	24.31	24.66	26.02
	8H	17.22	17.53	18.27	18.57	19.98	23.50	23.81	24.55	24.85	26.25