

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: P938069

Luminaire Tested: SQ4-FB-125U-100D-935-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

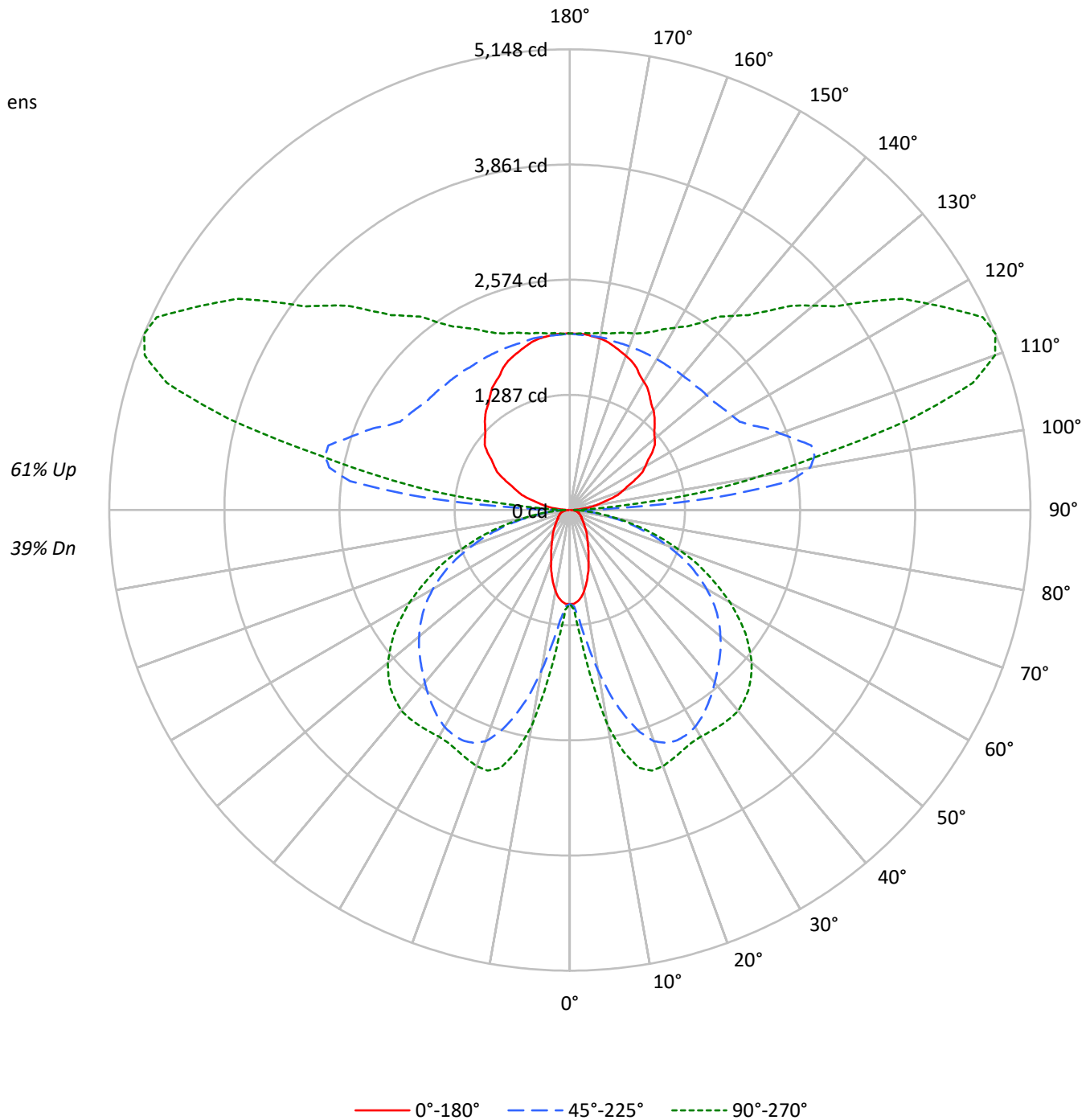
Test Method: LM-79-2019  
Report Number: P938069  
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-935-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20914.9 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 193.2  
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

TEST NUMBER: P938069  
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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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32				32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26				26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21				21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18				18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10				10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8				8

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3249	3249	3249
5°	3175	3756	4366
10°	2881	5476	7239
15°	2449	7156	8741
20°	1995	8294	8908
25°	1664	8682	8727
30°	1404	8739	8711
35°	1242	8596	8936
40°	1083	8410	9169
45°	982	8274	9205
50°	901	8152	9052
55°	864	7973	8651
60°	885	7627	8017
65°	923	7098	7147
70°	985	6195	6038
75°	1096	5055	4712
80°	1206	3510	3175
85°	1092	1865	1625

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9205 cd/sqm



TEST NUMBER: P938069

CATALOG NUMBER: SQ4-FB-125U-100D-935-1D-UNV-STD-W-12

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.9	0.6
10°-20°	602.1	2.9
20°-30°	1053.2	5.0
30°-40°	1355.8	6.5
40°-50°	1514.3	7.2
50°-60°	1450.4	6.9
60°-70°	1149.4	5.5
70°-80°	675.9	3.2
80°-90°	195.3	0.9
90°-100°	961.2	4.6
100°-110°	2527.0	12.1
110°-120°	2620.2	12.5
120°-130°	2101.7	10.0
130°-140°	1649.1	7.9
140°-150°	1265.8	6.1
150°-160°	911.6	4.4
160°-170°	557.7	2.7
170°-180°	188.4	0.9
0°-30°	1791.1	8.6
0°-40°	3146.9	15.0
0°-60°	6111.6	29.2
0°-90°	8132.2	38.9
90°-120°	6108.4	29.2
90°-150°	11125.0	53.2
90°-180°	12783.0	61.1
0°-180°	20914.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1023	1098	1236	1398	1449	94
15°	766	1415	2384	2891	2982	213
25°	490	1604	2840	2965	2968	226
35°	331	1533	2675	2826	2938	207
45°	226	1222	2364	2708	2830	175
55°	162	777	2006	2330	2394	148
65°	128	412	1489	1675	1699	127
75°	95	253	817	898	902	99
85°	34	78	203	223	226	36
90°	13	37	100	50	50	13
95°	127	498	1656	854	581	141
105°	455	690	2794	4241	3957	483
115°	808	982	2238	4464	5095	799
125°	1125	1261	2035	3439	4058	999
135°	1341	1476	1972	2776	3148	1037
145°	1555	1654	1947	2369	2554	974
155°	1757	1806	1947	2137	2199	808
165°	1896	1922	1947	2023	2049	535
175°	1972	1972	1960	1985	1985	187
180°	1972	1972	1972	1972	1972	



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CATALOG NUMBER: SQ4-FB-125U-100D-935-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3	1050.3
2.5°	1050.3	1050.3	1057.0	1060.4	1067.1	1070.5	1077.3	1084.0	1104.3	1107.7	1114.4
5°	1023.3	1036.7	1080.7	1097.5	1144.8	1209.0	1236.0	1279.9	1371.0	1398.0	1414.9
7.5°	982.7	1013.1	1121.1	1148.2	1266.3	1435.2	1506.2	1600.7	1745.9	1816.8	1874.2
10°	918.5	982.7	1175.2	1239.3	1431.9	1688.5	1820.2	1951.9	2171.4	2269.3	2306.4
12.5°	847.7	952.3	1232.6	1320.4	1597.3	1972.1	2130.9	2276.1	2526.0	2657.7	2677.9
15°	766.5	908.4	1286.6	1414.9	1772.9	2208.6	2384.2	2563.2	2796.2	2890.7	2914.4
17.5°	695.7	874.7	1337.3	1472.3	1908.0	2421.3	2600.3	2748.9	2938.0	3002.1	3019.1
20°	607.8	820.6	1371.0	1546.6	2049.8	2576.6	2748.9	2863.7	2992.0	3032.5	3039.3
22.5°	543.7	763.2	1391.3	1573.6	2144.4	2671.2	2816.4	2907.6	2995.4	3008.9	3012.2
25°	489.6	699.1	1387.9	1604.1	2225.4	2728.6	2840.1	2907.6	2958.2	2965.0	2965.0
27.5°	439.0	628.1	1374.4	1610.8	2286.3	2742.1	2829.9	2877.2	2900.8	2914.4	2914.4
30°	395.1	560.6	1340.6	1597.3	2313.3	2728.6	2799.5	2823.2	2846.8	2867.1	2877.2
32.5°	361.3	496.4	1290.0	1570.3	2316.6	2694.9	2745.5	2759.0	2792.8	2840.1	2856.9
35°	330.9	432.2	1232.6	1533.2	2296.3	2640.8	2674.6	2688.1	2755.6	2826.5	2850.2
37.5°	300.6	385.0	1158.3	1469.0	2266.0	2576.6	2600.3	2623.9	2728.6	2813.0	2840.1
40°	270.2	344.5	1070.5	1398.0	2218.7	2499.0	2519.2	2556.3	2694.9	2792.8	2819.8
42.5°	246.5	310.7	976.0	1323.8	2157.9	2411.2	2441.6	2495.6	2654.3	2759.0	2789.4
45°	226.3	276.9	874.7	1222.4	2080.2	2320.0	2363.9	2438.2	2607.0	2708.3	2735.3
47.5°	206.0	253.3	770.0	1117.8	1995.8	2228.8	2286.3	2370.6	2542.9	2640.8	2664.5
50°	189.1	229.6	665.2	1006.4	1904.6	2130.9	2198.4	2286.3	2461.9	2553.0	2583.4
52.5°	175.6	209.3	567.3	894.9	1799.9	2029.5	2107.3	2198.4	2363.9	2451.7	2472.0
55°	162.1	192.5	482.9	776.7	1691.9	1921.5	2005.9	2093.7	2255.8	2330.1	2343.6
57.5°	155.3	179.0	412.0	665.2	1577.1	1799.9	1894.5	1975.5	2127.5	2184.9	2198.4
60°	145.2	168.9	357.9	570.7	1452.1	1685.1	1766.2	1847.2	1975.5	2022.8	2033.0
62.5°	135.0	162.1	317.5	479.5	1323.8	1550.0	1631.1	1705.4	1813.5	1847.2	1860.7
65°	128.3	155.3	287.0	412.0	1192.1	1408.2	1489.2	1553.5	1641.2	1674.9	1681.8
67.5°	121.6	148.6	263.4	354.6	1060.4	1266.3	1327.2	1387.9	1455.5	1489.2	1492.6
70°	111.4	141.9	243.2	314.0	925.3	1104.3	1155.0	1219.1	1273.1	1290.0	1300.2
72.5°	104.7	131.7	229.6	283.6	786.8	949.0	996.2	1033.4	1080.7	1097.5	1097.5
75°	94.6	118.2	216.2	253.3	645.0	776.7	817.2	854.4	891.5	898.3	888.1
77.5°	84.4	104.7	185.7	212.7	503.2	614.6	648.4	668.6	699.1	705.8	709.2
80°	70.9	91.2	145.2	165.5	364.7	452.5	476.2	493.1	520.1	520.1	526.8
82.5°	54.0	70.9	104.7	118.2	246.5	310.7	330.9	341.1	357.9	357.9	357.9
85°	33.7	43.9	67.6	77.7	148.6	189.1	202.6	206.0	219.5	222.9	222.9
87.5°	16.9	23.6	43.9	47.3	77.7	97.9	97.9	104.7	104.7	101.3	97.9
90°	13.2	23.8	34.4	37.1	58.2	86.4	100.5	89.4	67.1	50.3	50.3
92.5°	52.9	142.9	232.9	255.4	359.1	497.3	566.4	496.4	356.4	251.4	241.5
95°	127.0	291.7	456.4	497.6	883.5	1398.2	1655.5	1477.3	1120.9	853.6	823.3
97.5°	219.6	364.9	510.3	546.6	1190.2	2048.3	2477.4	2364.7	2139.5	1970.5	1912.8
100°	291.1	422.9	554.7	587.6	1301.8	2254.1	2730.1	2738.4	2754.9	2767.2	2698.5
102.5°	352.0	475.0	597.8	628.6	1353.0	2318.7	2801.6	2945.1	3232.1	3447.4	3388.7
105°	455.2	559.3	663.5	689.5	1390.9	2326.0	2793.6	3115.3	3758.9	4241.4	4209.8
107.5°	561.1	658.2	755.2	779.5	1398.0	2222.6	2634.9	3083.6	3981.1	4654.3	4662.0
110°	632.6	720.2	807.9	829.8	1387.3	2130.8	2502.5	3004.2	4007.6	4760.2	4793.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	702.7	786.2	869.7	890.6	1387.7	2050.7	2382.1	2895.6	3922.5	4692.7	4743.3
115°	808.5	885.6	962.7	981.9	1400.6	1958.7	2237.9	2732.5	3721.8	4463.8	4533.9
117.5°	913.2	983.1	1053.2	1070.6	1426.6	1901.2	2138.6	2585.1	3477.9	4147.5	4225.2
120°	974.0	1039.9	1105.8	1122.3	1447.8	1881.9	2098.9	2506.8	3322.6	3934.5	4010.0
122.5°	1033.6	1100.0	1166.5	1183.1	1478.2	1871.8	2068.5	2435.8	3170.4	3721.4	3795.9
125°	1124.9	1185.5	1246.0	1261.2	1519.3	1863.3	2035.3	2347.3	2971.4	3439.4	3508.1
127.5°	1199.0	1260.2	1321.4	1336.6	1560.3	1858.5	2007.6	2275.4	2811.3	3213.1	3271.1
130°	1238.7	1304.6	1370.4	1386.9	1590.3	1861.4	1997.0	2235.5	2712.5	3070.3	3123.8
132.5°	1279.7	1345.6	1411.5	1428.0	1614.5	1863.3	1987.7	2201.2	2628.2	2948.5	2996.5
135°	1340.6	1400.6	1460.6	1475.6	1641.0	1861.6	1971.9	2150.7	2508.3	2776.5	2817.8
137.5°	1402.8	1462.2	1521.6	1536.4	1680.7	1873.0	1969.2	2120.4	2422.7	2649.4	2683.2
140°	1454.4	1509.1	1563.8	1577.5	1704.9	1874.9	1959.9	2090.5	2351.6	2547.5	2579.1
142.5°	1494.1	1544.7	1595.3	1607.9	1725.2	1881.7	1959.9	2074.6	2304.1	2476.1	2503.3
145°	1555.0	1599.1	1643.3	1654.2	1751.7	1881.7	1946.7	2040.5	2228.2	2368.8	2389.4
147.5°	1615.8	1658.8	1701.7	1712.4	1790.6	1894.7	1946.7	2020.5	2168.2	2278.8	2295.9
150°	1655.5	1694.4	1733.2	1742.9	1810.8	1901.4	1946.7	2009.1	2133.7	2227.2	2241.0
152.5°	1696.6	1726.0	1755.5	1762.8	1824.1	1905.8	1946.7	2000.0	2106.4	2186.2	2196.7
155°	1757.4	1779.2	1801.0	1806.4	1853.2	1915.6	1946.7	1989.1	2073.8	2137.2	2144.1
157.5°	1802.5	1823.6	1844.8	1850.1	1882.3	1925.3	1946.7	1979.6	2045.5	2094.9	2099.8
160°	1832.9	1849.4	1865.9	1870.0	1895.5	1929.7	1946.7	1974.9	2031.4	2073.8	2076.6
162.5°	1863.3	1875.7	1888.0	1891.1	1909.7	1934.4	1946.7	1970.6	2018.2	2053.9	2056.6
165°	1896.4	1907.5	1918.7	1921.5	1930.0	1941.1	1946.7	1963.8	1997.9	2023.4	2026.2
167.5°	1926.9	1932.2	1937.4	1938.7	1945.8	1955.3	1959.9	1971.1	1993.4	2010.2	2011.4
170°	1946.7	1952.0	1957.3	1958.6	1959.0	1959.6	1959.9	1971.1	1993.4	2010.2	2010.2
172.5°	1957.3	1958.5	1959.7	1959.9	1959.9	1959.9	1959.9	1968.8	1986.4	1999.6	1998.6
175°	1971.9	1971.9	1971.9	1971.9	1967.9	1962.6	1959.9	1965.6	1976.7	1985.1	1985.1
177.5°	1971.9	1971.9	1971.9	1971.9	1968.8	1964.6	1962.6	1967.0	1975.8	1982.4	1981.2
180°	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9	1971.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1050.3	1050.3
2.5°	1121.1	1114.4
5°	1442.0	1448.7
7.5°	1941.8	1938.4
10°	2414.6	2444.9
12.5°	2759.0	2765.8
15°	2968.4	2981.9
17.5°	3049.4	3052.8
20°	3052.8	3046.1
22.5°	3015.7	3008.9
25°	2971.8	2968.4
27.5°	2931.2	2934.6
30°	2914.4	2924.5
32.5°	2914.4	2931.2
35°	2921.1	2938.0
37.5°	2917.7	2938.0
40°	2904.2	2927.8
42.5°	2867.1	2883.9
45°	2809.6	2829.9
47.5°	2735.3	2748.9
50°	2640.8	2654.3
52.5°	2522.6	2526.0
55°	2380.7	2394.3
57.5°	2228.8	2232.2
60°	2060.0	2070.1
62.5°	1881.0	1881.0
65°	1691.9	1698.6
67.5°	1496.0	1512.9
70°	1296.7	1300.2
72.5°	1100.9	1100.9
75°	898.3	901.7
77.5°	705.8	705.8
80°	523.5	526.8
82.5°	361.3	368.1
85°	226.3	226.3
87.5°	104.7	94.6
90°	50.3	50.3
92.5°	201.4	161.5
95°	702.1	581.0
97.5°	1682.3	1451.7
100°	2423.9	2149.2
102.5°	3153.3	2918.1
105°	4083.4	3956.9
107.5°	4692.6	4723.1
110°	4924.9	5056.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4945.6	5148.0
115°	4814.5	5095.0
117.5°	4536.4	4847.5
120°	4312.3	4614.6
122.5°	4094.1	4392.3
125°	3782.8	4057.5
127.5°	3502.8	3734.6
130°	3337.9	3552.0
132.5°	3188.2	3379.9
135°	2983.0	3148.3
137.5°	2818.5	2953.8
140°	2705.6	2832.0
142.5°	2612.1	2720.9
145°	2471.7	2554.1
147.5°	2364.1	2432.4
150°	2296.4	2351.7
152.5°	2238.5	2280.2
155°	2171.8	2199.4
157.5°	2119.2	2138.6
160°	2087.7	2098.9
162.5°	2067.1	2077.7
165°	2037.4	2048.6
167.5°	2016.1	2020.8
170°	2010.2	2010.2
172.5°	1994.4	1990.4
175°	1985.1	1985.1
177.5°	1976.6	1971.9
180°	1971.9	1971.9



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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	3.99	4.79	5.03	5.84	7.26	17.18	17.98	18.22	19.03	20.45
	3H	4.69	5.41	5.74	6.47	7.91	19.02	19.74	20.07	20.80	22.24
	4H	4.99	5.67	6.05	6.73	8.17	19.67	20.35	20.73	21.41	22.86
	6H	5.24	5.86	6.31	6.93	8.38	20.10	20.73	21.17	21.79	23.25
	8H	5.30	5.90	6.38	6.98	8.43	20.22	20.82	21.30	21.90	23.35
	12H	5.32	5.88	6.40	6.96	8.44	20.29	20.86	21.37	21.93	23.41
4H	2H	11.21	11.89	12.28	12.95	14.39	17.45	18.13	18.52	19.19	20.64
	3H	12.77	13.34	13.85	14.43	15.88	19.50	20.06	20.57	21.15	22.61
	4H	12.86	13.38	13.94	14.46	15.94	20.26	20.78	21.35	21.86	23.34
	6H	12.87	13.32	13.96	14.42	15.89	20.80	21.25	21.89	22.35	23.83
	8H	12.84	13.26	13.93	14.36	15.85	20.97	21.39	22.06	22.48	23.97
	12H	12.80	13.18	13.91	14.28	15.78	21.06	21.44	22.17	22.55	24.04
8H	4H	14.30	14.72	15.39	15.82	17.31	20.32	20.74	21.41	21.83	23.32
	6H	14.54	14.89	15.66	16.03	17.51	20.95	21.30	22.06	22.43	23.92
	8H	14.56	14.86	15.68	15.98	17.49	21.17	21.47	22.29	22.59	24.10
	12H	14.52	14.79	15.65	15.91	17.45	21.31	21.58	22.44	22.70	24.24
12H	4H	14.44	14.83	15.55	15.93	17.43	20.27	20.65	21.38	21.75	23.25
	6H	14.80	15.11	15.92	16.23	17.73	20.93	21.24	22.05	22.35	23.86
	8H	14.87	15.14	15.99	16.25	17.79	21.16	21.43	22.29	22.54	24.09