

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: P937881

Luminaire Tested: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937881
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

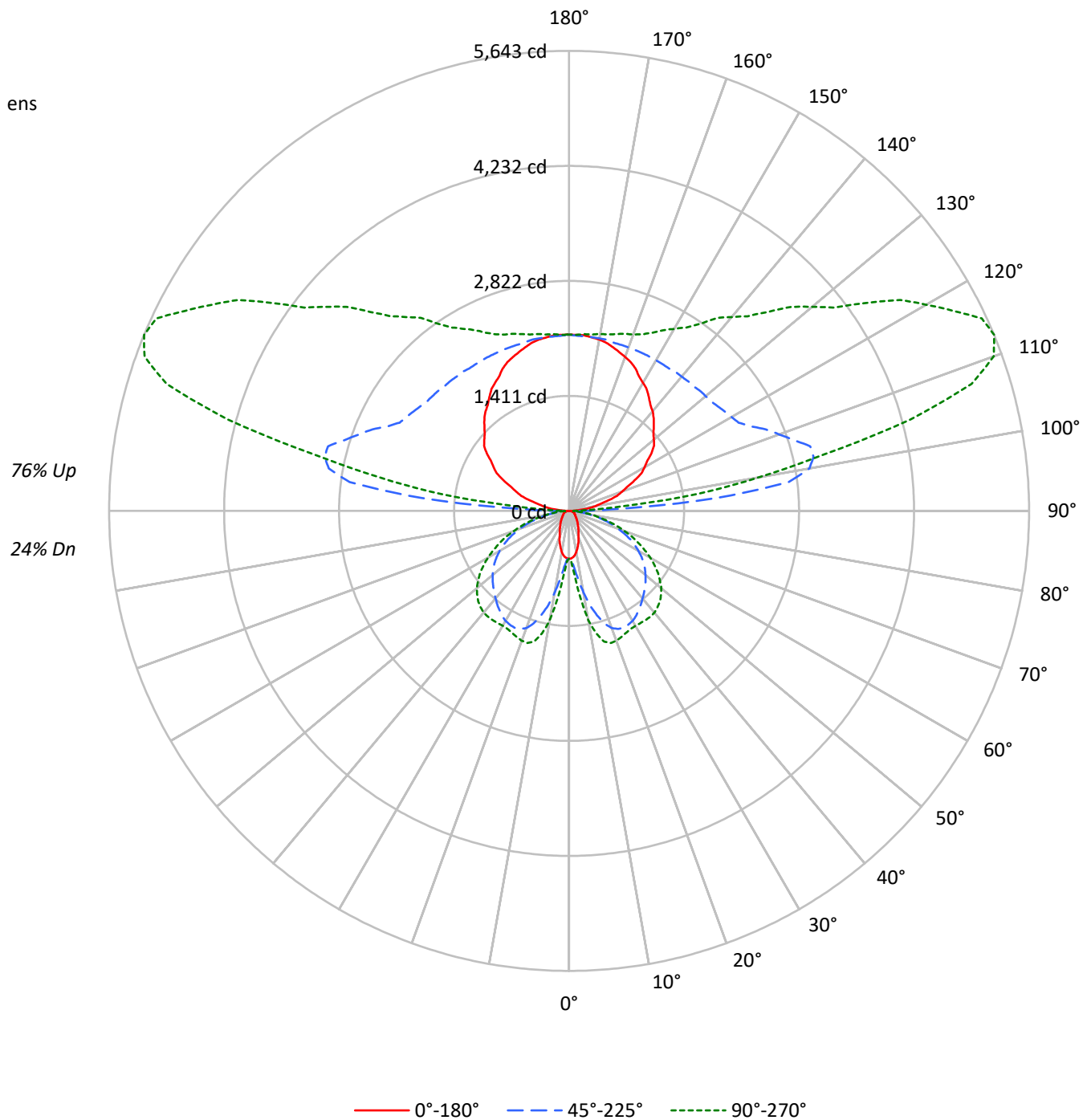
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18542.7 lumens
Efficiency: N/A
Efficacy: 129.9 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): 142.8
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

TEST NUMBER: P937881
CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P937881

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24			24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20			20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16			16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19	13			13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11			11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10			10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8			8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7			7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6			6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6			6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5			5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1808	1808	1808
5°	1767	2090	2430
10°	1603	3047	4029
15°	1363	3982	4864
20°	1110	4616	4958
25°	926	4831	4857
30°	782	4863	4848
35°	691	4784	4973
40°	603	4680	5103
45°	546	4605	5123
50°	502	4537	5038
55°	481	4437	4814
60°	493	4244	4462
65°	514	3950	3977
70°	548	3448	3360
75°	610	2813	2622
80°	672	1954	1767
85°	609	1038	904

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 5382 cd/sqm



TEST NUMBER: P937881

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	0.4
10°-20°	335.1	1.8
20°-30°	586.1	3.2
30°-40°	754.5	4.1
40°-50°	842.7	4.5
50°-60°	807.2	4.4
60°-70°	639.7	3.4
70°-80°	376.1	2.0
80°-90°	112.7	0.6
90°-100°	1053.7	5.7
100°-110°	2770.2	14.9
110°-120°	2872.4	15.5
120°-130°	2304.0	12.4
130°-140°	1807.8	9.7
140°-150°	1387.6	7.5
150°-160°	999.3	5.4
160°-170°	611.4	3.3
170°-180°	206.6	1.1
0°-30°	996.8	5.4
0°-40°	1751.3	9.4
0°-60°	3401.2	18.3
0°-90°	4529.7	24.4
90°-120°	6696.3	36.1
90°-150°	12195.7	65.8
90°-180°	14013.0	75.6
0°-180°	18542.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	570	611	688	778	806	53
15°	427	788	1327	1609	1659	119
25°	272	893	1580	1650	1652	126
35°	184	853	1488	1573	1635	115
45°	126	680	1316	1507	1575	97
55°	90	432	1116	1297	1332	82
65°	72	229	829	932	945	71
75°	53	141	455	500	502	55
85°	19	43	113	124	126	20
90°	14	41	110	55	55	13
95°	139	546	1815	936	637	155
105°	499	756	3062	4650	4338	529
115°	886	1076	2453	4893	5585	876
125°	1233	1383	2231	3770	4448	1095
135°	1470	1618	2162	3044	3451	1137
145°	1705	1814	2134	2597	2800	1068
155°	1927	1980	2134	2343	2411	885
165°	2079	2106	2134	2218	2246	587
175°	2162	2162	2149	2176	2176	205
180°	2162	2162	2162	2162	2162	



TEST NUMBER: P937881

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5
2.5°	584.5	584.5	588.2	590.1	593.8	595.7	599.5	603.3	614.6	616.4	620.2
5°	569.5	576.9	601.4	610.7	637.1	672.8	687.8	712.3	763.0	778.0	787.5
7.5°	546.9	563.8	623.9	638.9	704.8	798.8	838.2	890.8	971.6	1011.1	1043.0
10°	511.2	546.9	654.0	689.8	796.8	939.7	1012.9	1086.2	1208.4	1263.0	1283.6
12.5°	471.7	530.0	685.9	734.8	888.9	1097.5	1185.9	1266.7	1405.8	1479.1	1490.3
15°	426.7	505.6	716.0	787.5	986.7	1229.1	1326.8	1426.4	1556.1	1608.7	1621.9
17.5°	387.1	486.7	744.2	819.4	1061.9	1347.5	1447.0	1529.8	1635.1	1670.7	1680.2
20°	338.3	456.7	763.0	860.8	1140.8	1434.0	1529.8	1593.7	1665.1	1687.6	1691.4
22.5°	302.6	424.7	774.3	875.8	1193.4	1486.6	1567.3	1618.2	1667.0	1674.5	1676.3
25°	272.5	389.0	772.4	892.7	1238.5	1518.5	1580.5	1618.2	1646.3	1650.1	1650.1
27.5°	244.3	349.6	764.9	896.5	1272.3	1526.1	1574.9	1601.2	1614.3	1621.9	1621.9
30°	219.9	312.0	746.1	888.9	1287.3	1518.5	1558.0	1571.2	1584.3	1595.6	1601.2
32.5°	201.1	276.3	717.9	873.9	1289.2	1499.7	1527.9	1535.4	1554.2	1580.5	1589.9
35°	184.2	240.6	685.9	853.2	1278.0	1469.6	1488.4	1496.0	1533.5	1573.0	1586.1
37.5°	167.3	214.3	644.6	817.5	1261.0	1434.0	1447.0	1460.2	1518.5	1565.5	1580.5
40°	150.4	191.7	595.7	778.0	1234.7	1390.7	1402.0	1422.7	1499.7	1554.2	1569.2
42.5°	137.2	172.9	543.1	736.7	1200.9	1341.9	1358.8	1388.9	1477.1	1535.4	1552.3
45°	125.9	154.1	486.7	680.3	1157.7	1291.1	1315.5	1356.9	1450.9	1507.2	1522.2
47.5°	114.6	140.9	428.5	622.0	1110.7	1240.4	1272.3	1319.3	1415.1	1469.6	1482.8
50°	105.3	127.8	370.2	560.0	1059.9	1185.9	1223.4	1272.3	1370.1	1420.8	1437.7
52.5°	97.7	116.6	315.7	498.0	1001.7	1129.5	1172.7	1223.4	1315.5	1364.4	1375.7
55°	90.2	107.1	268.7	432.3	941.6	1069.3	1116.3	1165.2	1255.4	1296.8	1304.2
57.5°	86.5	99.6	229.3	370.2	877.7	1001.7	1054.3	1099.4	1183.9	1216.0	1223.4
60°	80.8	94.0	199.2	317.7	808.1	937.8	982.9	1028.0	1099.4	1125.8	1131.4
62.5°	75.2	90.2	176.6	266.8	736.7	862.6	907.8	949.0	1009.2	1028.0	1035.5
65°	71.5	86.5	159.7	229.3	663.4	783.7	828.8	864.5	913.4	932.1	935.9
67.5°	67.6	82.7	146.5	197.4	590.1	704.8	738.6	772.4	810.0	828.8	830.7
70°	62.0	78.9	135.3	174.8	514.9	614.6	642.8	678.5	708.5	717.9	723.6
72.5°	58.3	73.3	127.8	157.8	437.9	528.1	554.4	575.1	601.4	610.7	610.7
75°	52.6	65.8	120.3	140.9	358.9	432.3	454.8	475.5	496.1	499.9	494.3
77.5°	47.0	58.3	103.4	118.4	280.0	342.0	360.8	372.1	389.0	392.7	394.6
80°	39.5	50.7	80.8	92.1	203.0	251.8	265.0	274.4	289.4	289.4	293.2
82.5°	30.1	39.5	58.3	65.8	137.2	172.9	184.2	189.8	199.2	199.2	199.2
85°	18.8	24.5	37.5	43.2	82.7	105.3	112.7	114.6	122.2	124.0	124.0
87.5°	9.4	13.2	24.5	26.3	43.2	54.5	54.5	58.3	58.3	56.4	54.5
90°	14.5	26.1	37.7	40.6	63.8	94.7	110.2	98.0	73.5	55.1	55.1
92.5°	58.0	156.6	255.4	280.0	393.7	545.2	620.9	544.1	390.7	275.6	264.7
95°	139.3	319.8	500.3	545.5	968.6	1532.8	1814.9	1619.5	1228.8	935.8	902.5
97.5°	240.8	400.0	559.4	599.2	1304.7	2245.4	2715.8	2592.3	2345.4	2160.2	2096.9
100°	319.1	463.6	608.0	644.2	1427.1	2471.0	2992.9	3002.0	3020.0	3033.5	2958.3
102.5°	385.9	520.7	655.4	689.1	1483.2	2541.9	3071.3	3228.6	3543.2	3779.2	3714.8
105°	499.0	613.2	727.3	755.9	1524.8	2549.9	3062.5	3415.2	4120.6	4649.6	4615.0
107.5°	615.1	721.5	827.9	854.5	1532.5	2436.5	2888.5	3380.4	4364.3	5102.3	5110.7
110°	693.5	789.5	885.6	909.6	1520.8	2335.8	2743.3	3293.4	4393.3	5218.4	5254.5



TEST NUMBER: P937881

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	770.4	861.9	953.4	976.3	1521.3	2248.0	2611.4	3174.3	4300.0	5144.4	5199.9
115°	886.4	970.8	1055.3	1076.4	1535.4	2147.3	2453.2	2995.5	4080.0	4893.4	4970.3
117.5°	1001.1	1077.7	1154.5	1173.7	1563.9	2084.2	2344.4	2833.8	3812.6	4546.6	4631.9
120°	1067.7	1139.9	1212.2	1230.3	1587.1	2063.0	2300.9	2748.1	3642.4	4313.1	4396.0
122.5°	1133.0	1205.9	1278.7	1297.0	1620.5	2051.9	2267.6	2670.2	3475.5	4079.5	4161.3
125°	1233.2	1299.6	1366.0	1382.6	1665.5	2042.7	2231.2	2573.3	3257.4	3770.5	3845.7
127.5°	1314.4	1381.5	1448.5	1465.3	1710.4	2037.3	2200.8	2494.4	3081.8	3522.4	3585.9
130°	1357.9	1430.1	1502.3	1520.4	1743.3	2040.6	2189.2	2450.6	2973.6	3365.8	3424.4
132.5°	1402.9	1475.1	1547.4	1565.4	1769.9	2042.7	2179.0	2413.1	2881.2	3232.3	3284.9
135°	1469.6	1535.4	1601.2	1617.6	1799.0	2040.8	2161.6	2357.7	2749.7	3043.7	3089.0
137.5°	1537.8	1602.9	1668.0	1684.3	1842.4	2053.3	2158.8	2324.4	2655.8	2904.4	2941.4
140°	1594.3	1654.3	1714.3	1729.3	1869.0	2055.4	2148.6	2291.7	2577.9	2792.7	2827.3
142.5°	1637.9	1693.3	1748.8	1762.6	1891.3	2062.8	2148.6	2274.3	2525.8	2714.4	2744.2
145°	1704.6	1753.0	1801.4	1813.5	1920.3	2062.8	2134.1	2236.9	2442.6	2596.8	2619.4
147.5°	1771.3	1818.4	1865.5	1877.2	1962.9	2077.0	2134.1	2215.0	2376.8	2498.2	2516.8
150°	1814.9	1857.4	1900.0	1910.7	1985.1	2084.4	2134.1	2202.5	2339.1	2441.6	2456.7
152.5°	1859.9	1892.1	1924.4	1932.4	1999.7	2089.3	2134.1	2192.5	2309.1	2396.6	2408.1
155°	1926.6	1950.5	1974.3	1980.3	2031.5	2099.9	2134.1	2180.5	2273.4	2342.9	2350.5
157.5°	1976.0	1999.1	2022.4	2028.2	2063.5	2110.6	2134.1	2170.1	2242.3	2296.5	2301.8
160°	2009.3	2027.3	2045.5	2049.9	2078.0	2115.4	2134.1	2165.0	2226.9	2273.4	2276.4
162.5°	2042.7	2056.2	2069.7	2073.1	2093.5	2120.6	2134.1	2160.2	2212.5	2251.6	2254.5
165°	2078.9	2091.1	2103.4	2106.5	2115.7	2127.9	2134.1	2152.8	2190.1	2218.2	2221.2
167.5°	2112.3	2118.1	2123.9	2125.3	2133.1	2143.4	2148.6	2160.8	2185.3	2203.7	2205.0
170°	2134.1	2139.9	2145.7	2147.1	2147.5	2148.2	2148.6	2160.8	2185.3	2203.7	2203.7
172.5°	2145.7	2147.0	2148.3	2148.6	2148.6	2148.6	2148.6	2158.3	2177.6	2192.1	2191.0
175°	2161.6	2161.6	2161.6	2161.6	2157.3	2151.5	2148.6	2154.7	2167.0	2176.1	2176.1
177.5°	2161.6	2161.6	2161.6	2161.6	2158.3	2153.7	2151.5	2156.3	2165.9	2173.2	2171.9
180°	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6



TEST NUMBER: P937881

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	584.5	584.5
2.5°	623.9	620.2
5°	802.5	806.2
7.5°	1080.6	1078.8
10°	1343.7	1360.7
12.5°	1535.4	1539.1
15°	1652.0	1659.4
17.5°	1697.1	1698.9
20°	1698.9	1695.2
22.5°	1678.2	1674.5
25°	1653.8	1652.0
27.5°	1631.2	1633.2
30°	1621.9	1627.5
32.5°	1621.9	1631.2
35°	1625.6	1635.1
37.5°	1623.8	1635.1
40°	1616.2	1629.4
42.5°	1595.6	1605.0
45°	1563.6	1574.9
47.5°	1522.2	1529.8
50°	1469.6	1477.1
52.5°	1403.9	1405.8
55°	1325.0	1332.4
57.5°	1240.4	1242.2
60°	1146.4	1152.0
62.5°	1046.8	1046.8
65°	941.6	945.3
67.5°	832.6	841.9
70°	721.7	723.6
72.5°	612.7	612.7
75°	499.9	501.7
77.5°	392.7	392.7
80°	291.3	293.2
82.5°	201.1	204.8
85°	125.9	125.9
87.5°	58.3	52.6
90°	55.1	55.1
92.5°	220.8	177.0
95°	769.7	636.9
97.5°	1844.2	1591.4
100°	2657.1	2356.0
102.5°	3456.8	3199.0
105°	4476.4	4337.8
107.5°	5144.2	5177.7
110°	5398.9	5543.3



TEST NUMBER: P937881

CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5421.6	5643.4
115°	5277.8	5585.4
117.5°	4973.0	5314.1
120°	4727.3	5058.7
122.5°	4488.2	4815.1
125°	4146.9	4448.0
127.5°	3840.0	4094.0
130°	3659.1	3893.8
132.5°	3495.0	3705.2
135°	3270.1	3451.3
137.5°	3089.8	3238.1
140°	2966.0	3104.6
142.5°	2863.5	2982.7
145°	2709.6	2799.9
147.5°	2591.7	2666.5
150°	2517.4	2578.0
152.5°	2453.9	2499.7
155°	2380.9	2411.1
157.5°	2323.1	2344.4
160°	2288.7	2300.9
162.5°	2266.1	2277.7
165°	2233.5	2245.8
167.5°	2210.1	2215.3
170°	2203.7	2203.7
172.5°	2186.4	2181.9
175°	2176.1	2176.1
177.5°	2166.8	2161.6
180°	2161.6	2161.6



TEST NUMBER: P937881
 CATALOG NUMBER: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-5000K

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	0.05	0.74	1.20	1.88	3.47	13.25	13.93	14.39	15.07	16.66
	3H	0.75	1.36	1.90	2.51	4.11	15.08	15.69	16.23	16.84	18.45
	4H	1.04	1.62	2.20	2.77	4.38	15.72	16.30	16.88	17.45	19.06
	6H	1.28	1.82	2.45	2.96	4.59	16.14	16.68	17.31	17.83	19.45
	8H	1.34	1.85	2.51	3.01	4.63	16.26	16.77	17.43	17.94	19.55
	12H	1.35	1.84	2.53	2.99	4.63	16.32	16.81	17.50	17.97	19.61
4H	2H	7.26	7.84	8.42	8.99	10.60	13.50	14.08	14.67	15.23	16.84
	3H	8.81	9.29	9.98	10.47	12.09	15.53	16.02	16.71	17.19	18.82
	4H	8.89	9.34	10.07	10.50	12.15	16.29	16.75	17.47	17.90	19.55
	6H	8.89	9.28	10.07	10.46	12.09	16.83	17.21	18.01	18.40	20.03
	8H	8.86	9.22	10.04	10.40	12.05	16.99	17.35	18.17	18.52	20.17
	12H	8.81	9.14	10.01	10.32	11.98	17.07	17.40	18.27	18.59	20.24
8H	4H	10.33	10.69	11.51	11.86	13.51	16.34	16.70	17.52	17.87	19.52
	6H	10.56	10.86	11.76	12.07	13.72	16.96	17.26	18.16	18.48	20.12
	8H	10.57	10.83	11.78	12.03	13.69	17.18	17.44	18.39	18.64	20.30
	12H	10.53	10.76	11.74	11.95	13.65	17.32	17.55	18.53	18.74	20.44
12H	4H	10.46	10.79	11.66	11.97	13.63	16.28	16.61	17.48	17.79	19.45
	6H	10.82	11.08	12.02	12.27	13.94	16.95	17.20	18.15	18.40	20.06
	8H	10.88	11.11	12.09	12.30	13.99	17.17	17.40	18.38	18.59	20.29