

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: P936827

Luminaire Tested: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

**Test Information**

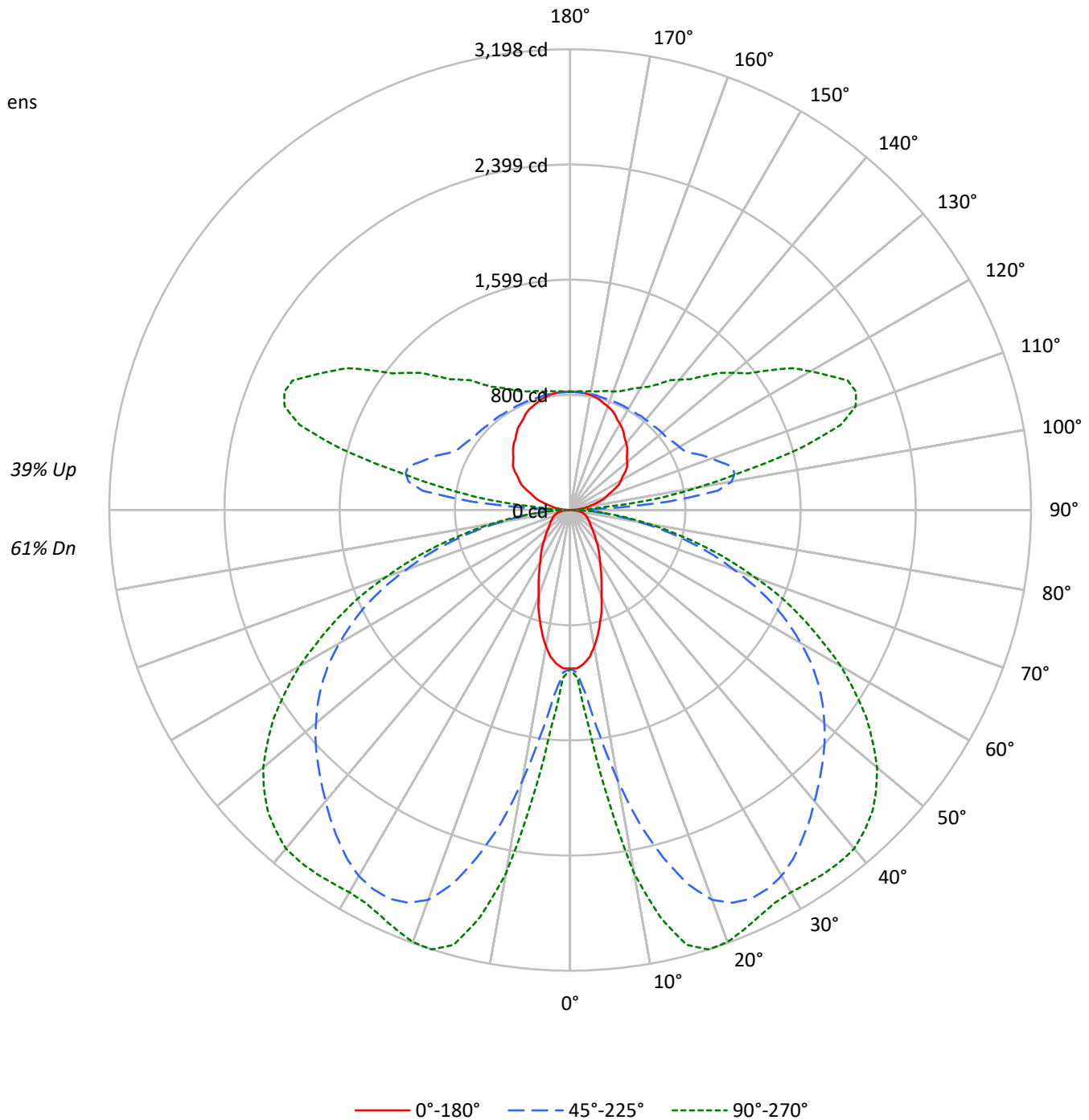
Test Method: LM-79-2019  
Report Number: P936827  
REPORT IS A COMBINATION OF REPORTS P933463 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13846.3 lumens  
Efficiency: N/A  
Efficacy: 102.1 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-Direct  
  
Input Watts (W): 135.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P936827  
CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P936827

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

**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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

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

	0°	45°	90°
0°	3403	3403	3403
5°	3326	3935	4575
10°	3018	5737	7584
15°	2566	7497	9158
20°	2090	8690	9333
25°	1744	9096	9143
30°	1471	9155	9126
35°	1302	9006	9362
40°	1135	8811	9606
45°	1029	8669	9644
50°	944	8541	9484
55°	905	8354	9063
60°	928	7991	8400
65°	966	7436	7488
70°	1033	6490	6325
75°	1149	5296	4937
80°	1264	3678	3326
85°	1144	1955	1703

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9644 cd/sqm



TEST NUMBER: P936827

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.3	1.0
10°-20°	630.8	4.6
20°-30°	1103.4	8.0
30°-40°	1420.4	10.3
40°-50°	1586.5	11.5
50°-60°	1519.5	11.0
60°-70°	1204.2	8.7
70°-80°	708.1	5.1
80°-90°	199.9	1.4
90°-100°	400.9	2.9
100°-110°	1053.9	7.6
110°-120°	1092.8	7.9
120°-130°	876.5	6.3
130°-140°	687.8	5.0
140°-150°	527.9	3.8
150°-160°	380.2	2.7
160°-170°	232.6	1.7
170°-180°	78.6	0.6
0°-30°	1876.5	13.6
0°-40°	3296.9	23.8
0°-60°	6403.0	46.2
0°-90°	8515.2	61.5
90°-120°	2547.5	18.4
90°-150°	4639.7	33.5
90°-180°	5331.0	38.5
0°-180°	13846.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1072	1150	1295	1465	1518	99
15°	803	1482	2498	3028	3124	224
25°	513	1680	2976	3106	3110	236
35°	347	1606	2802	2961	3078	217
45°	237	1281	2477	2838	2965	183
55°	170	814	2102	2441	2508	155
65°	134	432	1560	1755	1780	133
75°	99	265	856	941	945	104
85°	35	81	212	234	237	38
90°	6	15	42	21	21	7
95°	53	208	690	356	242	59
105°	190	288	1165	1769	1650	201
115°	337	410	933	1862	2125	333
125°	469	526	849	1434	1692	416
135°	559	615	822	1158	1313	433
145°	648	690	812	988	1065	406
155°	733	753	812	891	917	337
165°	791	801	812	844	854	223
175°	822	822	817	828	828	78
180°	822	822	822	822	822	



TEST NUMBER: P936827

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3
2.5°	1100.3	1100.3	1107.4	1111.0	1118.0	1121.6	1128.6	1135.7	1156.9	1160.5	1167.5
5°	1072.0	1086.1	1132.2	1149.9	1199.4	1266.6	1294.9	1340.9	1436.4	1464.7	1482.4
7.5°	1029.5	1061.4	1174.6	1202.9	1326.7	1503.6	1578.0	1677.0	1829.2	1903.4	1963.6
10°	962.3	1029.5	1231.2	1298.4	1500.1	1769.0	1907.0	2045.0	2274.9	2377.5	2416.4
12.5°	888.1	997.7	1291.4	1383.4	1673.5	2066.1	2232.4	2384.6	2646.4	2784.4	2805.6
15°	803.1	951.7	1347.9	1482.4	1857.5	2313.8	2497.8	2685.4	2929.5	3028.5	3053.3
17.5°	728.8	916.4	1401.1	1542.5	1998.9	2536.7	2724.3	2879.9	3078.0	3145.2	3163.0
20°	636.8	859.8	1436.4	1620.4	2147.6	2699.5	2879.9	3000.2	3134.6	3177.1	3184.2
22.5°	569.6	799.6	1457.6	1648.7	2246.6	2798.5	2950.6	3046.2	3138.2	3152.4	3155.9
25°	513.0	732.4	1454.1	1680.5	2331.5	2858.7	2975.5	3046.2	3099.3	3106.3	3106.3
27.5°	460.0	658.0	1440.0	1687.6	2395.3	2872.8	2964.8	3014.4	3039.1	3053.3	3053.3
30°	413.9	587.3	1404.5	1673.5	2423.6	2858.7	2933.0	2957.8	2982.5	3003.8	3014.4
32.5°	378.6	520.0	1351.5	1645.2	2427.0	2823.4	2876.4	2890.6	2925.9	2975.5	2993.1
35°	346.7	452.8	1291.4	1606.3	2405.8	2766.7	2802.1	2816.2	2887.0	2961.3	2986.1
37.5°	314.9	403.4	1213.5	1539.1	2374.0	2699.5	2724.3	2749.0	2858.7	2947.2	2975.5
40°	283.0	360.9	1121.6	1464.7	2324.5	2618.1	2639.3	2678.2	2823.4	2925.9	2954.2
42.5°	258.2	325.5	1022.5	1386.9	2260.7	2526.1	2558.0	2614.6	2780.9	2890.6	2922.3
45°	237.1	290.1	916.4	1280.7	2179.4	2430.6	2476.6	2554.4	2731.3	2837.5	2865.8
47.5°	215.8	265.4	806.7	1171.1	2091.0	2335.1	2395.3	2483.6	2664.1	2766.7	2791.5
50°	198.2	240.6	697.0	1054.4	1995.5	2232.4	2303.2	2395.3	2579.2	2674.7	2706.6
52.5°	184.0	219.3	594.4	937.6	1885.7	2126.3	2207.7	2303.2	2476.6	2568.6	2589.8
55°	169.9	201.6	505.9	813.7	1772.6	2013.1	2101.6	2193.5	2363.4	2441.2	2455.3
57.5°	162.7	187.5	431.7	697.0	1652.2	1885.7	1984.8	2069.7	2229.0	2289.0	2303.2
60°	152.1	176.9	375.0	597.9	1521.3	1765.4	1850.4	1935.3	2069.7	2119.3	2129.9
62.5°	141.5	169.9	332.6	502.4	1386.9	1623.9	1708.8	1786.7	1899.9	1935.3	1949.4
65°	134.4	162.7	300.7	431.7	1249.0	1475.3	1560.2	1627.5	1719.5	1754.8	1761.9
67.5°	127.4	155.7	276.0	371.5	1111.0	1326.7	1390.4	1454.1	1524.9	1560.2	1563.8
70°	116.8	148.6	254.8	329.0	969.4	1156.9	1210.0	1277.2	1333.8	1351.5	1362.1
72.5°	109.7	138.0	240.6	297.2	824.3	994.2	1043.7	1082.7	1132.2	1149.9	1149.9
75°	99.1	123.8	226.5	265.4	675.7	813.7	856.2	895.1	934.0	941.1	930.5
77.5°	88.5	109.7	194.6	222.9	527.2	643.9	679.3	700.5	732.4	739.4	743.0
80°	74.3	95.5	152.1	173.3	382.1	474.1	498.9	516.6	544.9	544.9	551.9
82.5°	56.6	74.3	109.7	123.8	258.2	325.5	346.7	357.3	375.0	375.0	375.0
85°	35.3	46.0	70.8	81.4	155.7	198.2	212.3	215.8	229.9	233.5	233.5
87.5°	17.7	24.7	46.0	49.5	81.4	102.6	102.6	109.7	109.7	106.1	102.6
90°	5.5	9.9	14.4	15.4	24.3	36.1	42.0	37.3	27.9	21.0	21.0
92.5°	22.0	59.5	97.1	106.5	149.7	207.4	236.2	207.0	148.6	104.9	100.7
95°	53.0	121.7	190.4	207.5	368.5	583.1	690.4	616.1	467.5	356.0	343.3
97.5°	91.6	152.2	212.8	228.0	496.4	854.2	1033.2	986.3	892.3	821.8	797.8
100°	121.4	176.4	231.3	245.0	542.9	940.0	1138.6	1142.0	1148.9	1154.1	1125.4
102.5°	146.8	198.1	249.3	262.2	564.2	967.1	1168.4	1228.2	1347.9	1437.7	1413.2
105°	189.9	233.2	276.6	287.5	580.0	970.1	1165.1	1299.3	1567.6	1768.9	1755.7
107.5°	234.0	274.5	315.0	325.1	583.1	927.0	1098.9	1286.1	1660.5	1941.2	1944.4
110°	263.9	300.4	337.0	346.1	578.6	888.7	1043.7	1253.0	1671.4	1985.3	1999.0



TEST NUMBER: P936827

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	293.0	327.9	362.7	371.4	578.8	855.2	993.5	1207.6	1635.9	1957.2	1978.2
115°	337.2	369.4	401.5	409.5	584.1	816.9	933.3	1139.6	1552.2	1861.6	1890.9
117.5°	380.8	410.0	439.2	446.5	594.9	792.9	891.9	1078.1	1450.4	1729.7	1762.1
120°	406.2	433.7	461.1	468.0	603.8	784.9	875.4	1045.5	1385.7	1640.9	1672.4
122.5°	431.0	458.8	486.5	493.4	616.5	780.6	862.6	1015.8	1322.2	1552.0	1583.1
125°	469.2	494.4	519.7	526.0	633.7	777.1	848.9	979.0	1239.2	1434.4	1463.1
127.5°	500.0	525.6	551.1	557.4	650.7	775.1	837.3	949.0	1172.5	1340.1	1364.3
130°	516.6	544.1	571.5	578.4	663.2	776.3	832.9	932.3	1131.3	1280.5	1302.8
132.5°	533.7	561.2	588.7	595.6	673.4	777.1	829.0	918.1	1096.1	1229.7	1249.7
135°	559.1	584.1	609.1	615.4	684.4	776.4	822.4	897.0	1046.2	1158.0	1175.2
137.5°	585.0	609.8	634.7	640.8	701.0	781.2	821.3	884.3	1010.4	1105.0	1119.1
140°	606.5	629.4	652.1	657.9	711.1	781.9	817.4	871.8	980.8	1062.5	1075.7
142.5°	623.1	644.2	665.4	670.6	719.5	784.8	817.4	865.2	960.9	1032.7	1044.0
145°	648.5	666.9	685.3	689.9	730.6	784.8	811.9	851.0	929.3	988.0	996.5
147.5°	673.9	691.8	709.7	714.2	746.8	790.2	811.9	842.7	904.3	950.5	957.6
150°	690.4	706.6	722.8	726.9	755.2	793.0	811.9	837.9	889.9	928.9	934.7
152.5°	707.6	719.8	732.1	735.2	760.8	794.9	811.9	834.2	878.5	911.8	916.2
155°	732.9	742.0	751.1	753.4	772.9	798.9	811.9	829.6	864.9	891.4	894.2
157.5°	751.8	760.6	769.3	771.6	785.1	803.0	811.9	825.7	853.1	873.7	875.7
160°	764.4	771.3	778.2	779.9	790.6	804.8	811.9	823.7	847.2	864.9	866.0
162.5°	777.1	782.3	787.5	788.7	796.5	806.7	811.9	821.8	841.7	856.6	857.6
165°	791.0	795.6	800.2	801.4	804.9	809.6	811.9	819.1	833.3	843.9	845.0
167.5°	803.6	805.8	808.0	808.5	811.5	815.4	817.4	822.0	831.4	838.3	838.9
170°	811.9	814.1	816.3	816.8	817.0	817.3	817.4	822.0	831.4	838.3	838.3
172.5°	816.3	816.7	817.3	817.4	817.4	817.4	817.4	821.0	828.4	834.0	833.5
175°	822.4	822.4	822.4	822.4	820.7	818.4	817.4	819.7	824.4	827.9	827.9
177.5°	822.4	822.4	822.4	822.4	821.1	819.4	818.5	820.4	824.1	826.8	826.3
180°	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4	822.4



TEST NUMBER: P936827

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1100.3	1100.3
2.5°	1174.6	1167.5
5°	1510.8	1517.8
7.5°	2034.4	2030.8
10°	2529.7	2561.5
12.5°	2890.6	2897.6
15°	3109.9	3124.1
17.5°	3194.8	3198.3
20°	3198.3	3191.3
22.5°	3159.4	3152.4
25°	3113.5	3109.9
27.5°	3071.0	3074.5
30°	3053.3	3063.9
32.5°	3053.3	3071.0
35°	3060.3	3078.0
37.5°	3056.8	3078.0
40°	3042.7	3067.4
42.5°	3003.8	3021.4
45°	2943.6	2964.8
47.5°	2865.8	2879.9
50°	2766.7	2780.9
52.5°	2642.9	2646.4
55°	2494.2	2508.4
57.5°	2335.1	2338.6
60°	2158.2	2168.8
62.5°	1970.6	1970.6
65°	1772.6	1779.6
67.5°	1567.4	1585.0
70°	1358.6	1362.1
72.5°	1153.4	1153.4
75°	941.1	944.7
77.5°	739.4	739.4
80°	548.4	551.9
82.5°	378.6	385.6
85°	237.1	237.1
87.5°	109.7	99.1
90°	21.0	21.0
92.5°	84.0	67.3
95°	292.8	242.3
97.5°	701.6	605.5
100°	1010.9	896.4
102.5°	1315.1	1217.0
105°	1703.0	1650.3
107.5°	1957.1	1969.8
110°	2053.9	2108.9





TEST NUMBER: P936827

CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2062.7	2147.0
115°	2007.9	2125.0
117.5°	1891.9	2021.7
120°	1798.5	1924.6
122.5°	1707.5	1831.8
125°	1577.6	1692.2
127.5°	1460.9	1557.5
130°	1392.1	1481.4
132.5°	1329.6	1409.6
135°	1244.1	1313.0
137.5°	1175.5	1231.9
140°	1128.4	1181.1
142.5°	1089.4	1134.8
145°	1030.9	1065.3
147.5°	986.0	1014.5
150°	957.7	980.8
152.5°	933.6	951.0
155°	905.8	917.3
157.5°	883.8	891.9
160°	870.8	875.4
162.5°	862.1	866.6
165°	849.8	854.4
167.5°	840.8	842.8
170°	838.3	838.3
172.5°	831.8	830.1
175°	827.9	827.9
177.5°	824.3	822.4
180°	822.4	822.4



TEST NUMBER: P936827  
 CATALOG NUMBER: SQ4-FB-050U-100D-92765-1D-UNV-STD-W-12-3500K

**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	6.25	7.27	7.09	8.15	9.24	19.44	20.47	20.28	21.34	22.43
	3H	6.97	7.89	7.82	8.77	9.89	21.30	22.22	22.15	23.10	24.22
	4H	7.27	8.15	8.14	9.03	10.16	21.95	22.83	22.83	23.72	24.84
	6H	7.53	8.34	8.42	9.23	10.38	22.40	23.20	23.28	24.10	25.24
	8H	7.60	8.37	8.50	9.29	10.43	22.53	23.30	23.42	24.21	25.35
	12H	7.63	8.36	8.53	9.27	10.44	22.60	23.34	23.50	24.24	25.41
4H	2H	13.49	14.37	14.37	15.25	16.38	19.73	20.61	20.61	21.50	22.62
	3H	15.07	15.81	15.96	16.73	17.87	21.80	22.53	22.69	23.45	24.60
	4H	15.18	15.84	16.08	16.76	17.93	22.58	23.25	23.48	24.16	25.33
	6H	15.20	15.78	16.11	16.71	17.89	23.13	23.71	24.05	24.65	25.82
	8H	15.18	15.72	16.09	16.65	17.84	23.30	23.84	24.22	24.78	25.96
	12H	15.14	15.63	16.08	16.58	17.78	23.40	23.89	24.34	24.85	26.04
8H	4H	16.64	17.18	17.56	18.11	19.30	22.65	23.19	23.57	24.13	25.31
	6H	16.89	17.34	17.83	18.31	19.50	23.29	23.74	24.24	24.72	25.90
	8H	16.91	17.31	17.86	18.27	19.48	23.52	23.92	24.47	24.88	26.09
	12H	16.88	17.24	17.84	18.19	19.45	23.67	24.03	24.63	24.98	26.24
12H	4H	16.79	17.28	17.73	18.23	19.43	22.61	23.10	23.55	24.05	25.25
	6H	17.15	17.55	18.10	18.51	19.72	23.28	23.68	24.23	24.64	25.85
	8H	17.23	17.58	18.19	18.54	19.79	23.52	23.87	24.48	24.83	26.08