

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: P938073

Luminaire Tested: SQ4-FB-125U-100D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938073
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-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

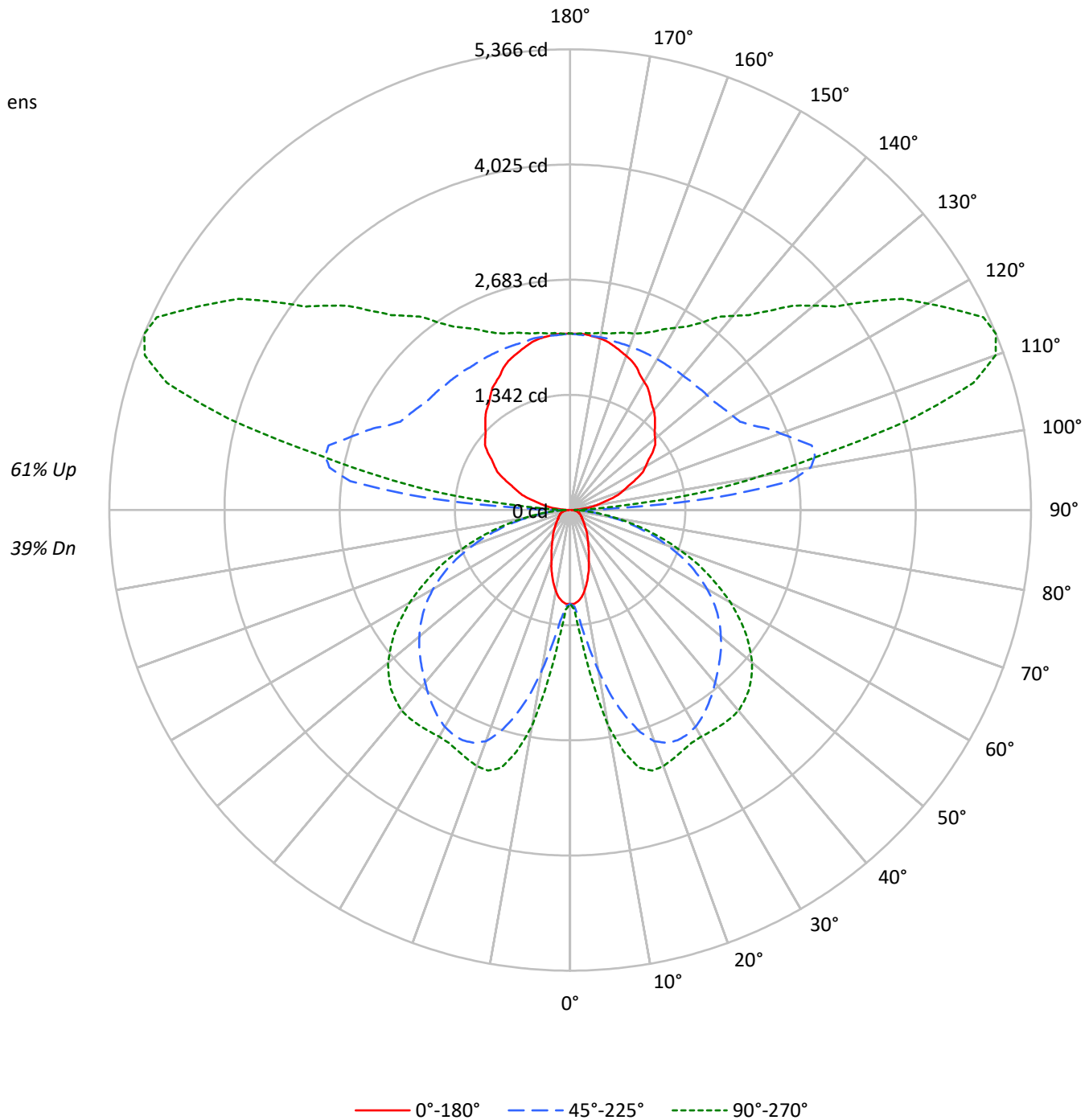
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21798.6 lumens
Efficiency: N/A
Efficacy: 112.8 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 (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

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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	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°	3386	3386	3386
5°	3309	3914	4551
10°	3003	5707	7545
15°	2553	7458	9110
20°	2079	8645	9285
25°	1735	9049	9096
30°	1464	9108	9079
35°	1295	8959	9314
40°	1129	8765	9556
45°	1023	8624	9594
50°	939	8497	9435
55°	901	8310	9017
60°	923	7949	8356
65°	961	7398	7449
70°	1027	6457	6293
75°	1143	5269	4911
80°	1257	3659	3309
85°	1141	1945	1694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9594 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.6	0.6
10°-20°	627.5	2.9
20°-30°	1097.7	5.0
30°-40°	1413.0	6.5
40°-50°	1578.3	7.2
50°-60°	1511.7	6.9
60°-70°	1198.0	5.5
70°-80°	704.5	3.2
80°-90°	203.5	0.9
90°-100°	1001.8	4.6
100°-110°	2633.8	12.1
110°-120°	2730.9	12.5
120°-130°	2190.5	10.0
130°-140°	1718.8	7.9
140°-150°	1319.2	6.1
150°-160°	950.1	4.4
160°-170°	581.3	2.7
170°-180°	196.4	0.9
0°-30°	1866.8	8.6
0°-40°	3279.9	15.0
0°-60°	6369.8	29.2
0°-90°	8475.8	38.9
90°-120°	6366.5	29.2
90°-150°	11595.0	53.2
90°-180°	13323.0	61.1
0°-180°	21798.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1066	1144	1288	1457	1510	98
15°	799	1475	2485	3013	3108	222
25°	510	1672	2960	3090	3094	235
35°	345	1598	2788	2946	3062	215
45°	236	1274	2464	2823	2950	182
55°	169	810	2091	2429	2496	154
65°	134	429	1552	1746	1770	133
75°	99	264	852	936	940	103
85°	35	81	211	232	236	37
90°	14	39	105	52	52	14
95°	132	519	1726	890	606	147
105°	474	719	2912	4421	4124	503
115°	843	1023	2332	4652	5310	832
125°	1172	1314	2121	3585	4229	1041
135°	1397	1538	2055	2894	3281	1081
145°	1621	1724	2029	2469	2662	1015
155°	1832	1883	2029	2228	2292	842
165°	1976	2003	2029	2109	2135	558
175°	2055	2055	2043	2069	2069	195
180°	2055	2055	2055	2055	2055	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6
2.5°	1094.6	1094.6	1101.7	1105.2	1112.2	1115.8	1122.8	1129.8	1150.9	1154.5	1161.5
5°	1066.5	1080.5	1126.3	1143.9	1193.2	1260.1	1288.2	1334.0	1429.0	1457.1	1474.7
7.5°	1024.2	1055.9	1168.5	1196.7	1319.8	1495.8	1569.8	1668.3	1819.7	1893.6	1953.4
10°	957.4	1024.2	1224.8	1291.7	1492.4	1759.8	1897.1	2034.4	2263.2	2365.2	2403.9
12.5°	883.5	992.5	1284.7	1376.2	1664.8	2055.5	2220.9	2372.3	2632.7	2770.0	2791.1
15°	798.9	946.8	1341.0	1474.7	1847.8	2301.9	2484.9	2671.5	2914.3	3012.8	3037.5
17.5°	725.1	911.6	1393.8	1534.6	1988.6	2523.6	2710.2	2865.0	3062.1	3129.0	3146.6
20°	633.5	855.3	1429.0	1612.0	2136.4	2685.5	2865.0	2984.7	3118.4	3160.7	3167.7
22.5°	566.6	795.5	1450.1	1640.1	2235.0	2784.1	2935.4	3030.5	3121.9	3136.1	3139.5
25°	510.3	728.6	1446.6	1671.8	2319.5	2843.9	2960.1	3030.5	3083.2	3090.2	3090.2
27.5°	457.6	654.6	1432.5	1678.9	2382.9	2857.9	2949.5	2998.8	3023.4	3037.5	3037.5
30°	411.8	584.3	1397.3	1664.8	2411.0	2843.9	2917.8	2942.5	2967.1	2988.2	2998.8
32.5°	376.6	517.3	1344.5	1636.7	2414.5	2808.7	2861.5	2875.6	2910.8	2960.1	2977.6
35°	344.9	450.5	1284.7	1598.0	2393.3	2752.4	2787.6	2801.6	2872.1	2945.9	2970.6
37.5°	313.3	401.3	1207.2	1531.1	2361.7	2685.5	2710.2	2734.8	2843.9	2931.9	2960.1
40°	281.6	359.0	1115.8	1457.1	2312.4	2604.6	2625.6	2664.4	2808.7	2910.8	2938.9
42.5°	256.9	323.9	1017.2	1379.7	2249.0	2513.0	2544.7	2601.0	2766.5	2875.6	2907.2
45°	235.9	288.6	911.6	1274.1	2168.1	2418.0	2463.8	2541.2	2717.2	2822.8	2850.9
47.5°	214.7	264.0	802.5	1165.1	2080.1	2323.0	2382.9	2470.8	2650.3	2752.4	2777.0
50°	197.1	239.3	693.4	1048.9	1985.1	2220.9	2291.3	2382.9	2565.9	2660.9	2692.6
52.5°	183.0	218.2	591.3	932.8	1876.0	2115.3	2196.3	2291.3	2463.8	2555.3	2576.4
55°	169.0	200.6	503.3	809.5	1763.4	2002.7	2090.7	2182.2	2351.2	2428.6	2442.6
57.5°	161.9	186.6	429.4	693.4	1643.7	1876.0	1974.6	2059.0	2217.4	2277.2	2291.3
60°	151.3	176.0	373.0	594.8	1513.4	1756.3	1840.8	1925.3	2059.0	2108.3	2118.9
62.5°	140.7	169.0	330.9	499.8	1379.7	1615.5	1700.0	1777.4	1890.1	1925.3	1939.3
65°	133.7	161.9	299.2	429.4	1242.5	1467.7	1552.1	1619.1	1710.6	1745.7	1752.8
67.5°	126.7	154.9	274.6	369.6	1105.2	1319.8	1383.2	1446.6	1517.0	1552.1	1555.7
70°	116.2	147.9	253.4	327.3	964.4	1150.9	1203.8	1270.6	1326.9	1344.5	1355.1
72.5°	109.1	137.3	239.3	295.6	820.1	989.1	1038.3	1077.1	1126.3	1143.9	1143.9
75°	98.6	123.2	225.3	264.0	672.2	809.5	851.8	890.5	929.2	936.2	925.7
77.5°	88.0	109.1	193.6	221.7	524.5	640.6	675.8	696.9	728.6	735.6	739.2
80°	73.9	95.0	151.3	172.4	380.2	471.6	496.3	513.9	542.0	542.0	549.1
82.5°	56.3	73.9	109.1	123.2	256.9	323.9	344.9	355.5	373.0	373.0	373.0
85°	35.2	45.7	70.4	81.0	154.9	197.1	211.2	214.7	228.7	232.3	232.3
87.5°	17.6	24.6	45.7	49.3	81.0	102.0	102.0	109.1	109.1	105.6	102.0
90°	13.8	24.8	35.9	38.6	60.7	90.0	104.8	93.2	69.9	52.4	52.4
92.5°	55.1	148.9	242.8	266.2	374.3	518.3	590.3	517.3	371.5	262.0	251.7
95°	132.4	304.1	475.7	518.6	920.9	1457.3	1725.5	1539.7	1168.3	889.7	858.1
97.5°	228.9	380.3	531.8	569.7	1240.4	2134.8	2582.0	2464.6	2229.9	2053.8	1993.6
100°	303.4	440.8	578.1	612.5	1356.8	2349.3	2845.5	2854.1	2871.3	2884.1	2812.6
102.5°	366.9	495.1	623.1	655.2	1410.1	2416.7	2920.0	3069.5	3368.7	3593.1	3531.8
105°	474.5	583.0	691.5	718.7	1449.7	2424.3	2911.7	3247.0	3917.7	4420.6	4387.7
107.5°	584.8	686.0	787.1	812.4	1457.0	2316.5	2746.2	3213.9	4149.4	4851.0	4859.0
110°	659.3	750.6	842.0	864.8	1445.9	2220.8	2608.2	3131.2	4177.0	4961.3	4995.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	732.4	819.4	906.5	928.2	1446.4	2137.3	2482.8	3018.0	4088.3	4891.0	4943.8
115°	842.7	923.0	1003.4	1023.4	1459.8	2041.5	2332.4	2848.0	3879.1	4652.4	4725.5
117.5°	951.8	1024.7	1097.7	1115.9	1486.9	1981.6	2229.0	2694.3	3624.8	4322.7	4403.8
120°	1015.2	1083.8	1152.5	1169.7	1509.0	1961.4	2187.6	2612.8	3463.0	4100.7	4179.5
122.5°	1077.2	1146.5	1215.8	1233.1	1540.7	1950.8	2155.9	2538.7	3304.3	3878.6	3956.3
125°	1172.4	1235.6	1298.7	1314.5	1583.5	1942.1	2121.3	2446.5	3097.0	3584.8	3656.3
127.5°	1249.7	1313.4	1377.2	1393.1	1626.2	1937.0	2092.4	2371.6	2930.0	3348.9	3409.3
130°	1291.1	1359.7	1428.3	1445.5	1657.5	1940.1	2081.4	2329.9	2827.1	3200.0	3255.8
132.5°	1333.8	1402.4	1471.1	1488.3	1682.8	1942.1	2071.7	2294.2	2739.3	3073.1	3123.1
135°	1397.3	1459.8	1522.3	1537.9	1710.4	1940.3	2055.2	2241.6	2614.3	2893.8	2936.9
137.5°	1462.1	1524.0	1585.9	1601.3	1751.7	1952.2	2052.4	2210.0	2525.0	2761.3	2796.6
140°	1515.8	1572.8	1629.8	1644.1	1777.0	1954.1	2042.8	2178.8	2451.0	2655.1	2688.1
142.5°	1557.2	1609.9	1662.7	1675.8	1798.1	1961.2	2042.8	2162.3	2401.4	2580.7	2609.0
145°	1620.7	1666.7	1712.7	1724.1	1825.7	1961.2	2029.0	2126.8	2322.3	2468.9	2490.4
147.5°	1684.1	1728.8	1773.6	1784.8	1866.2	1974.7	2029.0	2105.9	2259.8	2375.1	2392.9
150°	1725.5	1766.0	1806.5	1816.6	1887.4	1981.7	2029.0	2094.0	2223.9	2321.3	2335.7
152.5°	1768.3	1798.9	1829.6	1837.3	1901.2	1986.4	2029.0	2084.5	2195.4	2278.6	2289.5
155°	1831.7	1854.4	1877.1	1882.7	1931.5	1996.5	2029.0	2073.1	2161.4	2227.5	2234.7
157.5°	1878.7	1900.7	1922.8	1928.3	1961.9	2006.6	2029.0	2063.3	2131.9	2183.4	2188.5
160°	1910.4	1927.5	1944.7	1949.0	1975.6	2011.2	2029.0	2058.4	2117.3	2161.4	2164.3
162.5°	1942.1	1954.9	1967.8	1971.0	1990.4	2016.1	2029.0	2053.9	2103.5	2140.7	2143.5
165°	1976.5	1988.1	1999.8	2002.7	2011.5	2023.1	2029.0	2046.8	2082.3	2108.9	2111.8
167.5°	2008.3	2013.8	2019.3	2020.6	2028.0	2037.9	2042.8	2054.4	2077.7	2095.1	2096.4
170°	2029.0	2034.5	2040.0	2041.3	2041.8	2042.4	2042.8	2054.4	2077.7	2095.1	2095.1
172.5°	2040.0	2041.2	2042.5	2042.8	2042.8	2042.8	2042.8	2052.0	2070.4	2084.1	2083.1
175°	2055.2	2055.2	2055.2	2055.2	2051.0	2045.5	2042.8	2048.6	2060.2	2069.0	2069.0
177.5°	2055.2	2055.2	2055.2	2055.2	2052.0	2047.6	2045.5	2050.1	2059.3	2066.2	2065.0
180°	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2	2055.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1094.6	<i>1094.6</i>
2.5°	1168.5	<i>1161.5</i>
5°	1502.9	<i>1510.0</i>
7.5°	2023.8	<i>2020.3</i>
10°	2516.6	<i>2548.2</i>
12.5°	2875.6	<i>2882.6</i>
15°	3093.8	<i>3107.9</i>
17.5°	3178.2	<i>3181.8</i>
20°	3181.8	<i>3174.8</i>
22.5°	3143.1	<i>3136.1</i>
25°	3097.3	<i>3093.8</i>
27.5°	3055.1	<i>3058.6</i>
30°	3037.5	<i>3048.1</i>
32.5°	3037.5	<i>3055.1</i>
35°	3044.5	<i>3062.1</i>
37.5°	3041.0	<i>3062.1</i>
40°	3026.9	<i>3051.5</i>
42.5°	2988.2	<i>3005.8</i>
45°	2928.4	<i>2949.5</i>
47.5°	2850.9	<i>2865.0</i>
50°	2752.4	<i>2766.5</i>
52.5°	2629.2	<i>2632.7</i>
55°	2481.3	<i>2495.5</i>
57.5°	2323.0	<i>2326.5</i>
60°	2147.0	<i>2157.6</i>
62.5°	1960.4	<i>1960.4</i>
65°	1763.4	<i>1770.4</i>
67.5°	1559.2	<i>1576.8</i>
70°	1351.5	<i>1355.1</i>
72.5°	1147.4	<i>1147.4</i>
75°	936.2	<i>939.8</i>
77.5°	735.6	<i>735.6</i>
80°	545.6	<i>549.1</i>
82.5°	376.6	<i>383.6</i>
85°	235.9	<i>235.9</i>
87.5°	109.1	<i>98.6</i>
90°	52.4	<i>52.4</i>
92.5°	209.9	<i>168.3</i>
95°	731.8	<i>605.5</i>
97.5°	1753.4	<i>1513.1</i>
100°	2526.3	<i>2240.0</i>
102.5°	3286.6	<i>3041.4</i>
105°	4255.9	<i>4124.1</i>
107.5°	4890.8	<i>4922.7</i>
110°	5133.0	<i>5270.3</i>



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5154.6	5365.5
115°	5017.9	5310.3
117.5°	4728.1	5052.4
120°	4494.5	4809.6
122.5°	4267.1	4577.9
125°	3942.6	4228.9
127.5°	3650.8	3892.4
130°	3478.9	3702.1
132.5°	3322.9	3522.7
135°	3109.1	3281.3
137.5°	2937.6	3078.6
140°	2819.9	2951.7
142.5°	2722.4	2835.8
145°	2576.2	2662.0
147.5°	2464.0	2535.2
150°	2393.4	2451.1
152.5°	2333.0	2376.6
155°	2263.6	2292.4
157.5°	2208.7	2229.0
160°	2176.0	2187.6
162.5°	2154.5	2165.5
165°	2123.5	2135.2
167.5°	2101.3	2106.2
170°	2095.1	2095.1
172.5°	2078.7	2074.5
175°	2069.0	2069.0
177.5°	2060.1	2055.2
180°	2055.2	2055.2



TEST NUMBER: P938073
 CATALOG NUMBER: SQ4-FB-125U-100D-940-1D-UNV-STD-W-12

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	4.14	4.93	5.18	5.98	7.40	17.33	18.13	18.37	19.18	20.60
	3H	4.84	5.55	5.89	6.61	8.05	19.17	19.88	20.22	20.94	22.38
	4H	5.13	5.81	6.19	6.87	8.32	19.81	20.49	20.88	21.55	23.00
	6H	5.38	6.01	6.45	7.07	8.53	20.25	20.87	21.32	21.94	23.39
	8H	5.45	6.04	6.52	7.12	8.57	20.37	20.96	21.44	22.04	23.50
	12H	5.46	6.03	6.54	7.10	8.58	20.44	21.00	21.52	22.08	23.55
4H	2H	11.35	12.03	12.42	13.09	14.54	17.59	18.27	18.66	19.34	20.78
	3H	12.91	13.48	13.99	14.57	16.03	19.64	20.21	20.72	21.30	22.75
	4H	13.00	13.53	14.09	14.61	16.08	20.41	20.93	21.49	22.01	23.49
	6H	13.01	13.46	14.10	14.56	16.04	20.95	21.40	22.04	22.50	23.97
	8H	12.99	13.41	14.08	14.50	15.99	21.11	21.53	22.20	22.62	24.11
	12H	12.94	13.32	14.05	14.43	15.92	21.20	21.58	22.31	22.69	24.19
8H	4H	14.45	14.87	15.54	15.96	17.45	20.46	20.88	21.55	21.98	23.46
	6H	14.69	15.03	15.80	16.17	17.66	21.09	21.44	22.21	22.58	24.06
	8H	14.70	15.01	15.82	16.13	17.63	21.31	21.62	22.43	22.74	24.24
	12H	14.67	14.94	15.79	16.05	17.59	21.46	21.73	22.58	22.84	24.38
12H	4H	14.59	14.97	15.70	16.08	17.57	20.41	20.79	21.52	21.90	23.39
	6H	14.95	15.25	16.07	16.37	17.87	21.07	21.38	22.19	22.50	24.00
	8H	15.01	15.28	16.14	16.39	17.94	21.30	21.57	22.43	22.69	24.23