

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: P855194

Luminaire Tested: SQ2-FA-125U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855194  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-125U-075D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

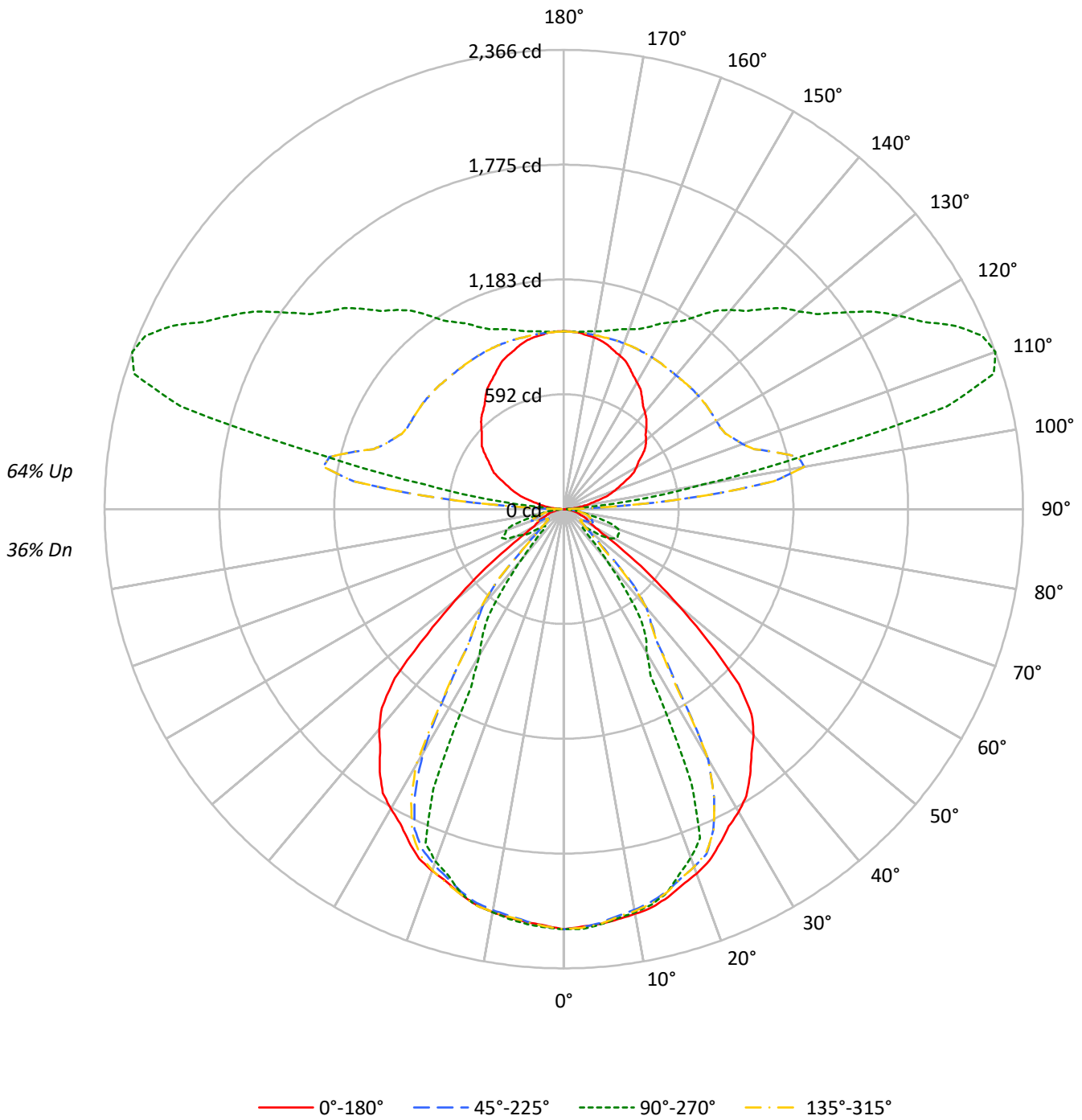
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8812.3 lumens  
Efficiency: N/A  
Efficacy: 124.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 70.6  
Input Voltage (V): 120  
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	0
RCR																		
0	104	104	104	104	94	94	94	94	75	75	75	59	59	59	43	43	43	36
1	95	91	88	85	86	83	80	77	67	65	63	53	51	50	39	39	38	32
2	88	81	75	71	79	74	69	65	60	57	54	47	45	43	36	34	33	28
3	81	72	65	60	73	66	60	56	54	50	47	43	40	38	33	31	30	25
4	74	64	57	52	67	59	53	48	49	44	41	39	36	33	30	28	26	23
5	69	58	51	45	62	53	47	42	44	39	36	36	32	30	28	26	24	20
6	64	52	45	40	58	48	42	37	40	35	32	33	29	27	26	23	22	19
7	59	48	40	35	54	44	38	33	37	32	29	30	27	24	24	21	20	17
8	55	44	36	32	50	40	34	30	34	29	26	28	24	22	22	20	18	16
9	51	40	33	28	47	37	31	27	31	27	23	26	22	20	21	18	17	15
10	48	37	30	26	44	34	28	24	29	24	21	24	21	18	19	17	15	14

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

	0°	90°	180°	270°
0°	34953	34953	34953	34953
5°	34767	34820	34634	34794
10°	34713	34580	34580	34580
15°	34601	34247	34328	34247
20°	34333	32874	34081	33184
25°	33882	27745	33651	28328
30°	33572	15918	33206	16132
35°	32981	13675	32564	13482
40°	32068	7191	31175	7122
45°	29149	3094	28106	3094
50°	19233	3733	18246	3484
55°	10753	6894	10204	6249
60°	5800	9697	5693	8696
65°	5116	11786	5364	13410
70°	4777	14106	4546	14875
75°	4485	12121	4579	12526
80°	3803	8647	3803	9112
85°	3335	4835	3020	5743

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 29149 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.7	2.3
10°-20°	577.9	6.6
20°-30°	788.0	8.9
30°-40°	662.2	7.5
40°-50°	376.1	4.3
50°-60°	199.6	2.3
60°-70°	183.7	2.1
70°-80°	134.9	1.5
80°-90°	36.3	0.4
90°-100°	350.3	4.0
100°-110°	1140.4	12.9
110°-120°	1128.1	12.8
120°-130°	921.9	10.5
130°-140°	753.5	8.6
140°-150°	586.9	6.7
150°-160°	423.0	4.8
160°-170°	258.6	2.9
170°-180°	87.2	1.0
0°-30°	1569.6	17.8
0°-40°	2231.8	25.3
0°-60°	2807.5	31.9
0°-90°	3162.4	35.9
90°-120°	2618.8	29.7
90°-150°	4881.1	55.4
90°-180°	5650.0	64.1
0°-180°	8812.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2165	2165	2165	2165	2165	
5°	2145	2148	2137	2147	2145	204
15°	2070	2049	2054	2049	2070	584
25°	1902	1557	1889	1590	1902	877
35°	1673	694	1652	684	1673	1045
45°	1277	136	1231	136	1277	933
55°	382	245	362	222	382	368
65°	134	308	140	351	134	134
75°	72	194	73	201	72	74
85°	18	26	16	31	18	20
90°	0	7	0	7	0	3
95°	47	141	47	141	47	55
105°	194	2043	194	2043	194	207
115°	358	2231	358	2231	358	355
125°	498	1765	498	1765	498	443
135°	602	1458	602	1458	602	465
145°	703	1219	703	1219	703	440
155°	802	1034	802	1034	802	369
165°	875	954	875	954	875	246
175°	912	917	912	917	912	87
180°	916	916	916	916	916	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8
2.5°	2153.0	2184.9	2156.8	2153.2	2164.8	2162.2	2158.2	2173.2	2147.8	2173.2	2153.0
5°	2145.1	2181.8	2140.2	2129.2	2148.4	2135.6	2146.8	2168.8	2136.9	2165.7	2133.6
7.5°	2131.7	2164.3	2114.4	2107.4	2126.2	2115.0	2119.6	2150.4	2123.6	2142.5	2113.5
10°	2117.3	2146.1	2096.2	2091.7	2109.2	2098.0	2102.6	2134.8	2109.2	2126.7	2097.8
12.5°	2101.7	2124.0	2074.0	2072.0	2087.0	2079.7	2081.8	2108.7	2088.3	2105.9	2078.2
15°	2070.0	2090.7	2040.6	2032.8	2048.8	2042.4	2045.6	2069.7	2053.7	2064.8	2040.6
17.5°	2030.9	2047.4	1997.5	1974.1	1974.6	1982.7	1997.5	2026.6	2012.2	2026.9	1992.6
20°	1998.2	2017.3	1962.3	1916.5	1913.3	1921.3	1962.3	1991.5	1983.5	1999.4	1950.9
22.5°	1960.3	1973.1	1923.1	1845.7	1835.0	1842.9	1917.8	1952.5	1949.5	1960.4	1900.0
25°	1901.9	1914.7	1823.6	1712.2	1557.4	1702.7	1826.7	1888.9	1888.9	1898.4	1818.6
27.5°	1842.5	1842.8	1677.9	1099.6	970.1	1060.0	1675.7	1810.2	1825.5	1820.7	1663.9
30°	1800.7	1789.5	1487.2	888.9	853.8	876.1	1488.8	1755.5	1781.1	1763.5	1449.7
32.5°	1752.4	1720.7	1098.1	817.3	788.5	808.3	1061.8	1690.7	1735.4	1697.4	1140.2
35°	1673.3	1590.3	837.4	722.6	693.8	719.4	831.0	1562.7	1652.1	1549.9	865.3
37.5°	1588.1	1264.1	737.3	575.6	513.5	563.1	733.7	1250.5	1553.5	1221.5	736.6
40°	1521.5	993.1	662.8	421.0	341.2	397.1	657.9	947.5	1479.1	1019.3	646.5
42.5°	1432.7	872.4	532.2	267.4	209.2	244.8	510.4	852.3	1387.6	883.3	514.6
45°	1276.6	749.8	315.1	146.7	135.5	141.9	290.6	736.0	1230.9	720.1	321.6
47.5°	1011.1	571.9	202.5	124.7	136.8	124.7	196.2	553.7	955.0	552.8	202.1
50°	765.7	446.4	156.7	126.2	148.6	126.2	151.9	431.2	726.4	471.1	155.0
52.5°	567.2	373.0	128.0	138.4	178.6	140.9	124.4	363.2	538.4	380.0	121.1
55°	382.0	292.6	102.9	182.7	244.9	187.4	102.9	284.2	362.5	281.0	99.6
57.5°	242.3	217.7	104.1	234.8	279.5	239.2	105.8	209.8	232.4	210.7	91.4
60°	179.6	171.6	115.9	249.3	300.3	252.5	117.6	165.1	176.3	163.5	98.0
62.5°	148.2	135.1	139.4	270.0	312.1	263.0	142.4	128.9	154.1	123.5	108.4
65°	133.9	87.6	164.9	273.4	308.5	273.4	166.5	83.0	140.4	89.3	146.9
67.5°	120.9	65.0	159.3	271.6	310.5	272.2	155.4	61.9	115.9	60.3	150.2
70°	101.2	58.2	150.2	276.4	298.8	266.8	150.2	56.4	96.3	54.8	176.3
72.5°	84.2	55.2	139.8	255.2	264.8	245.7	141.0	54.9	84.5	49.5	165.9
75°	71.9	54.3	133.9	203.8	194.3	194.3	130.6	52.7	73.4	49.6	129.0
77.5°	53.9	48.1	111.0	133.1	125.7	125.7	109.1	46.5	51.3	43.6	104.8
80°	40.9	44.0	91.4	97.9	93.0	93.0	88.2	42.4	40.9	40.9	86.6
82.5°	31.7	37.5	70.5	71.7	68.2	67.0	68.6	37.1	31.7	34.2	66.9
85°	18.0	25.9	37.6	30.9	26.1	24.6	35.9	24.3	16.3	24.3	35.9
87.5°	6.6	12.3	6.8	6.6	6.6	6.6	6.8	12.3	6.6	11.0	8.1
90°	0.0	3.3	7.9	6.8	6.8	6.8	7.9	3.3	0.0	3.3	7.9
92.5°	16.2	58.3	186.3	61.4	47.3	61.4	186.3	58.3	16.2	58.3	186.3
95°	47.3	144.2	642.0	228.9	140.8	228.9	642.0	144.2	47.3	144.2	642.0
97.5°	88.9	187.6	1089.7	663.6	405.0	663.6	1089.7	187.6	88.9	187.6	1089.7
100°	116.0	213.0	1258.2	1121.9	727.7	1121.9	1258.2	213.0	116.0	213.0	1258.2
102.5°	146.7	240.0	1237.5	1659.8	1262.0	1659.8	1237.5	240.0	146.7	240.0	1237.5
105°	193.7	279.6	1129.7	2157.7	2043.2	2157.7	1129.7	279.6	193.7	279.6	1129.7
107.5°	244.7	325.5	1027.4	2201.0	2322.4	2201.0	1027.4	325.5	244.7	325.5	1027.4
110°	281.6	355.3	978.8	2147.3	2366.5	2147.3	978.8	355.3	281.6	355.3	978.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	312.2	385.1	948.2	2050.6	2333.2	2050.6	948.2	385.1	312.2	385.1	948.2
115°	358.2	427.5	920.3	1896.6	2231.3	1896.6	920.3	427.5	358.2	427.5	920.3
117.5°	405.5	468.1	909.4	1755.4	2088.7	1755.4	909.4	468.1	405.5	468.1	909.4
120°	432.5	494.2	906.7	1668.8	1991.4	1668.8	906.7	494.2	432.5	494.2	906.7
122.5°	458.7	519.4	907.6	1593.5	1894.1	1593.5	907.6	519.4	458.7	519.4	907.6
125°	497.8	555.1	907.8	1497.4	1765.1	1497.4	907.8	555.1	497.8	555.1	907.8
127.5°	531.4	590.0	907.6	1425.4	1648.6	1425.4	907.6	590.0	531.4	590.0	907.6
130°	553.0	612.6	906.7	1384.4	1583.7	1384.4	906.7	612.6	553.0	612.6	906.7
132.5°	571.9	634.1	905.8	1346.2	1533.2	1346.2	905.8	634.1	571.9	634.1	905.8
135°	601.5	664.3	903.4	1292.4	1457.6	1292.4	903.4	664.3	601.5	664.3	903.4
137.5°	630.3	693.5	900.9	1237.6	1384.4	1237.6	900.9	693.5	630.3	693.5	900.9
140°	651.0	711.6	900.0	1200.5	1339.2	1200.5	900.0	711.6	651.0	711.6	900.0
142.5°	670.9	728.8	900.0	1165.0	1288.9	1165.0	900.0	728.8	670.9	728.8	900.0
145°	702.9	754.6	901.1	1113.0	1218.7	1113.0	901.1	754.6	702.9	754.6	901.1
147.5°	734.0	778.9	902.7	1068.7	1150.4	1068.7	902.7	778.9	734.0	778.9	902.7
150°	754.7	794.3	904.4	1042.4	1111.7	1042.4	904.4	794.3	754.7	794.3	904.4
152.5°	775.4	808.0	905.3	1022.2	1077.5	1022.2	905.3	808.0	775.4	808.0	905.3
155°	802.0	828.4	906.7	996.5	1034.0	996.5	906.7	828.4	802.0	828.4	906.7
157.5°	827.2	846.1	908.0	977.6	1003.8	977.6	908.0	846.1	827.2	846.1	908.0
160°	842.5	857.9	909.0	965.8	986.7	965.8	909.0	857.9	842.5	857.9	909.0
162.5°	856.0	868.0	909.0	955.8	971.4	955.8	909.0	868.0	856.0	868.0	909.0
165°	875.2	882.9	909.0	943.0	954.0	943.0	909.0	882.9	875.2	882.9	909.0
167.5°	888.7	893.6	909.2	933.4	939.2	933.4	909.2	893.6	888.7	893.6	909.2
170°	897.7	899.9	910.1	927.1	929.2	927.1	910.1	899.9	897.7	899.9	910.1
172.5°	904.1	905.3	911.9	923.4	923.0	923.4	911.9	905.3	904.1	905.3	911.9
175°	912.3	912.3	912.3	919.0	916.9	919.0	912.3	912.3	912.3	912.3	912.3
177.5°	915.7	914.8	913.9	918.3	914.8	918.3	913.9	914.8	915.7	914.8	913.9
180°	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7	915.7



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8
2.5°	2147.9	2156.8	2156.8	2151.6	2177.2	2153.0
5°	2126.1	2146.8	2137.1	2136.9	2169.1	2145.1
7.5°	2110.7	2130.1	2121.2	2119.4	2150.8	2131.7
10°	2094.8	2109.2	2102.9	2107.6	2136.6	2117.3
12.5°	2072.6	2089.6	2083.3	2090.6	2117.0	2101.7
15°	2034.4	2048.8	2052.0	2055.3	2086.0	2070.0
17.5°	1971.2	1978.3	1994.2	2016.9	2048.8	2030.9
20°	1921.7	1931.3	1940.8	1980.2	2017.3	1998.2
22.5°	1865.2	1862.0	1884.4	1930.6	1976.9	1960.3
25°	1713.0	1590.1	1725.8	1844.7	1906.6	1901.9
27.5°	1192.8	1035.0	1174.6	1702.7	1832.8	1842.5
30°	938.7	865.3	937.0	1519.8	1778.3	1800.7
32.5°	833.4	783.0	826.7	1156.8	1709.6	1752.4
35°	719.2	684.0	719.2	865.3	1574.4	1673.3
37.5°	575.7	503.8	574.3	747.7	1272.7	1588.1
40°	428.9	337.9	416.1	669.4	1017.1	1521.5
42.5°	285.7	217.7	270.5	527.0	879.8	1432.7
45°	154.7	135.5	148.2	318.3	717.9	1276.6
47.5°	121.3	128.3	121.3	200.8	549.2	1011.1
50°	116.4	138.7	116.4	155.0	454.4	765.7
52.5°	126.9	150.5	125.6	122.4	370.8	567.2
55°	143.8	222.0	145.4	99.6	271.8	382.0
57.5°	204.7	249.8	207.0	94.4	209.4	242.3
60°	210.3	269.3	208.7	99.6	162.1	179.6
62.5°	248.7	333.4	248.4	114.0	120.4	148.2
65°	319.0	351.0	322.3	145.3	86.0	133.9
67.5°	302.8	325.6	299.7	155.7	59.2	120.9
70°	297.5	315.1	294.3	177.9	54.9	101.2
72.5°	277.6	279.9	271.8	164.9	49.5	84.2
75°	215.1	200.8	207.2	142.0	49.5	71.9
77.5°	133.8	128.0	128.9	108.4	43.7	53.9
80°	101.2	98.0	96.3	91.4	40.9	40.9
82.5°	75.0	71.9	70.3	70.5	34.2	31.7
85°	34.2	31.0	29.4	40.9	24.3	18.0
87.5°	7.9	7.9	6.6	8.1	9.7	6.6
90°	6.8	6.8	6.8	7.9	3.3	0.0
92.5°	61.4	47.3	61.4	186.3	58.3	16.2
95°	228.9	140.8	228.9	642.0	144.2	47.3
97.5°	663.6	405.0	663.6	1089.7	187.6	88.9
100°	1121.9	727.7	1121.9	1258.2	213.0	116.0
102.5°	1659.8	1262.0	1659.8	1237.5	240.0	146.7
105°	2157.7	2043.2	2157.7	1129.7	279.6	193.7
107.5°	2201.0	2322.4	2201.0	1027.4	325.5	244.7
110°	2147.3	2366.5	2147.3	978.8	355.3	281.6





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	2050.6	2333.2	2050.6	948.2	385.1	312.2
115°	1896.6	2231.3	1896.6	920.3	427.5	358.2
117.5°	1755.4	2088.7	1755.4	909.4	468.1	405.5
120°	1668.8	1991.4	1668.8	906.7	494.2	432.5
122.5°	1593.5	1894.1	1593.5	907.6	519.4	458.7
125°	1497.4	1765.1	1497.4	907.8	555.1	497.8
127.5°	1425.4	1648.6	1425.4	907.6	590.0	531.4
130°	1384.4	1583.7	1384.4	906.7	612.6	553.0
132.5°	1346.2	1533.2	1346.2	905.8	634.1	571.9
135°	1292.4	1457.6	1292.4	903.4	664.3	601.5
137.5°	1237.6	1384.4	1237.6	900.9	693.5	630.3
140°	1200.5	1339.2	1200.5	900.0	711.6	651.0
142.5°	1165.0	1288.9	1165.0	900.0	728.8	670.9
145°	1113.0	1218.7	1113.0	901.1	754.6	702.9
147.5°	1068.7	1150.4	1068.7	902.7	778.9	734.0
150°	1042.4	1111.7	1042.4	904.4	794.3	754.7
152.5°	1022.2	1077.5	1022.2	905.3	808.0	775.4
155°	996.5	1034.0	996.5	906.7	828.4	802.0
157.5°	977.6	1003.8	977.6	908.0	846.1	827.2
160°	965.8	986.7	965.8	909.0	857.9	842.5
162.5°	955.8	971.4	955.8	909.0	868.0	856.0
165°	943.0	954.0	943.0	909.0	882.9	875.2
167.5°	933.4	939.2	933.4	909.2	893.6	888.7
170°	927.1	929.2	927.1	910.1	899.9	897.7
172.5°	923.4	923.0	923.4	911.9	905.3	904.1
175°	919.0	916.9	919.0	912.3	912.3	912.3
177.5°	918.3	914.8	918.3	913.9	914.8	915.7
180°	915.7	915.7	915.7	915.7	915.7	915.7



TEST NUMBER: P855194

CATALOG NUMBER: SQ2-FA-125U-075D-835-UNV-STD-W-4

**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	10.76	11.44	11.84	12.51	13.98	9.61	10.29	10.70	11.37	12.83
	3H	11.45	12.06	12.54	13.14	14.62	15.76	16.36	16.85	17.45	18.93
	4H	11.85	12.43	12.96	13.51	15.01	17.03	17.60	18.13	18.69	20.18
	6H	12.20	12.73	13.32	13.82	15.32	17.63	18.16	18.74	19.25	20.75
	8H	12.32	12.82	13.43	13.92	15.42	17.75	18.25	18.86	19.35	20.85
	12H	12.38	12.86	13.50	13.96	15.48	17.78	18.26	18.90	19.36	20.87
4H	2H	11.14	11.71	12.25	12.80	14.29	10.13	10.71	11.24	11.79	13.28
	3H	12.12	12.61	13.24	13.72	15.22	16.45	16.93	17.56	18.04	19.54
	4H	12.68	13.13	13.80	14.23	15.75	17.89	18.34	19.01	19.44	20.96
	6H	13.15	13.53	14.28	14.66	16.17	18.62	19.00	19.75	20.13	21.64
	8H	13.32	13.68	14.45	14.79	16.32	18.79	19.14	19.92	20.26	21.79
	12H	13.43	13.75	14.57	14.88	16.41	18.84	19.16	19.99	20.29	21.83
8H	4H	13.78	14.13	14.90	15.24	16.77	18.01	18.36	19.14	19.48	21.01
	6H	14.38	14.67	15.53	15.83	17.36	18.88	19.17	20.03	20.33	21.86
	8H	14.62	14.87	15.77	16.01	17.56	19.14	19.39	20.29	20.53	22.07
	12H	14.78	15.00	15.94	16.14	17.72	19.25	19.47	20.41	20.61	22.19
12H	4H	13.91	14.23	15.06	15.36	16.90	17.96	18.28	19.11	19.41	20.94
	6H	14.66	14.91	15.81	16.05	17.60	18.90	19.15	20.05	20.29	21.83
	8H	14.95	15.17	16.10	16.31	17.89	19.17	19.39	20.32	20.52	22.11