

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: P853810

Luminaire Tested: SQ2-FA-125U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

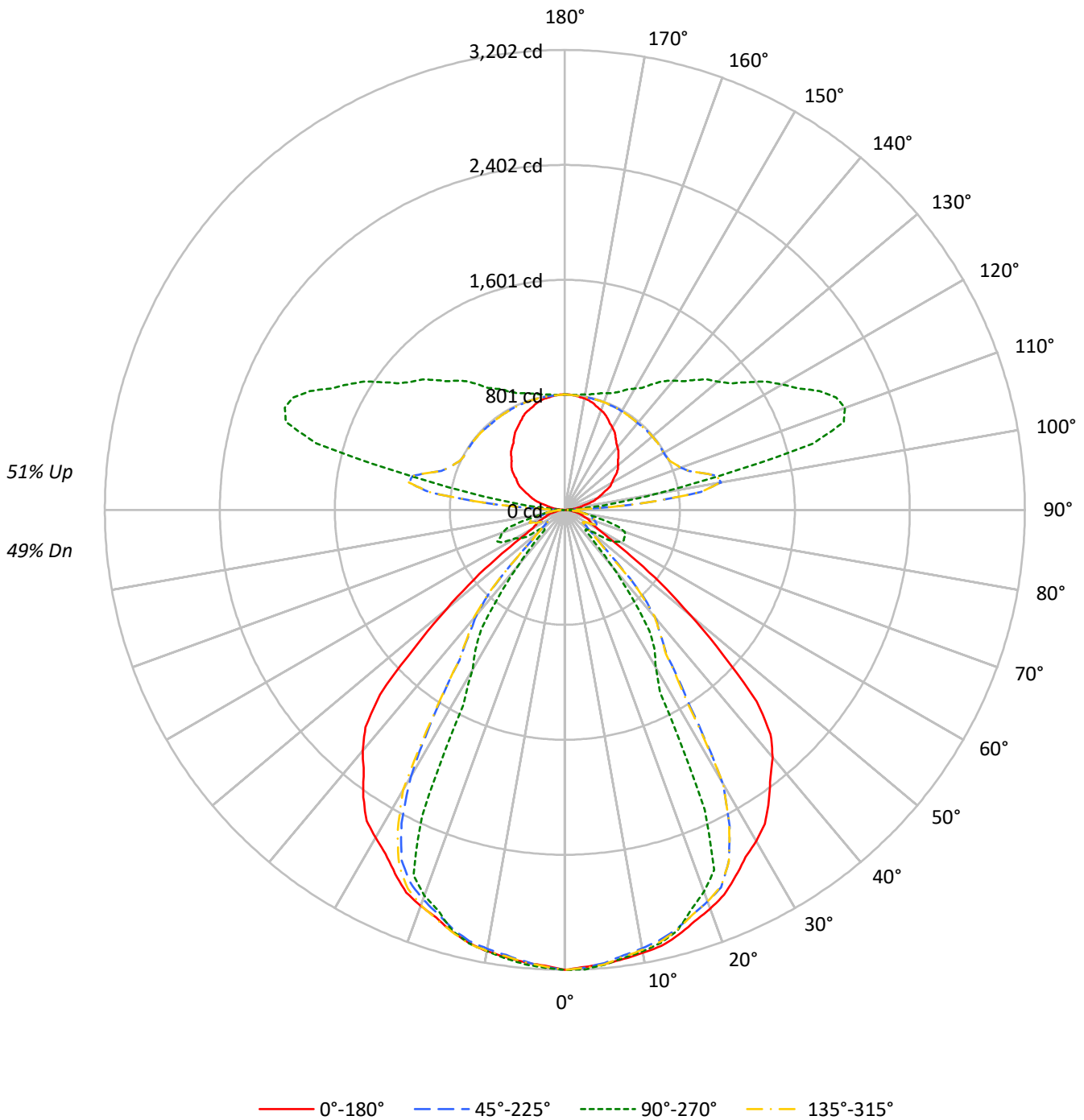
Test Method: LM-79-2019  
Report Number: P853810  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-125U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9630.6 lumens  
Efficiency: N/A  
Efficacy: 103.4 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: General Diffuse  
  
Input Watts (W): 93.1  
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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	98	95	91	88	91	87	84	82	74	72	70	61	60	59	50	49	48	43
2	91	84	78	74	83	78	73	69	66	63	60	55	53	51	46	44	43	38
3	84	75	69	63	77	70	64	59	60	55	52	50	47	45	42	40	38	34
4	77	68	60	55	71	63	57	52	54	49	46	46	43	40	38	36	34	31
5	72	61	54	48	66	57	51	46	49	44	41	42	38	36	35	33	31	28
6	67	56	48	43	62	52	45	41	45	40	36	39	35	32	33	30	28	25
7	62	51	43	38	57	48	41	36	42	36	33	36	32	29	31	28	26	23
8	58	47	39	34	54	44	37	33	38	33	30	33	29	27	28	26	24	21
9	54	43	36	31	50	40	34	30	36	31	27	31	27	24	27	24	22	20
10	51	40	33	29	47	37	31	27	33	28	25	29	25	23	25	22	20	18

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

	0°	90°	180°	270°
0°	51705	51705	51705	51705
5°	51433	51511	51237	51472
10°	51354	51155	51155	51155
15°	51188	50663	50783	50663
20°	50790	48632	50417	49089
25°	50122	41046	49779	41906
30°	49663	23549	49122	23864
35°	48791	20231	48172	19945
40°	47440	10638	46116	10536
45°	43124	4576	41580	4576
50°	28452	5521	26995	5157
55°	15907	10199	15091	9244
60°	8580	14350	8422	12868
65°	7564	17436	7935	19836
70°	7067	20866	6727	22003
75°	6631	17929	6781	18534
80°	5616	12803	5616	13473
85°	4928	7151	4483	8503

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 43124 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	301.4	3.1
10°-20°	855.0	8.9
20°-30°	1165.7	12.1
30°-40°	979.6	10.2
40°-50°	556.4	5.8
50°-60°	295.2	3.1
60°-70°	271.8	2.8
70°-80°	199.6	2.1
80°-90°	53.0	0.6
90°-100°	307.1	3.2
100°-110°	999.7	10.4
110°-120°	988.9	10.3
120°-130°	808.2	8.4
130°-140°	660.5	6.9
140°-150°	514.5	5.3
150°-160°	370.8	3.9
160°-170°	226.7	2.4
170°-180°	76.5	0.8
0°-30°	2322.0	24.1
0°-40°	3301.7	34.3
0°-60°	4153.3	43.1
0°-90°	4677.6	48.6
90°-120°	2295.8	23.8
90°-150°	4278.9	44.4
90°-180°	4953.0	51.4
0°-180°	9630.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3202	3202	3202	3202	3202	
5°	3173	3178	3161	3176	3173	302
15°	3062	3031	3038	3031	3062	863
25°	2814	2304	2794	2352	2814	1297
35°	2475	1026	2444	1012	2475	1545
45°	1889	200	1821	200	1889	1381
55°	565	362	536	328	565	544
65°	198	456	208	519	198	199
75°	106	287	109	297	106	110
85°	27	39	24	46	27	30
90°	0	6	0	6	0	3
95°	42	123	42	123	42	48
105°	170	1791	170	1791	170	181
115°	314	1956	314	1956	314	311
125°	436	1547	436	1547	436	388
135°	527	1278	527	1278	527	407
145°	616	1068	616	1068	616	386
155°	703	906	703	906	703	324
165°	767	836	767	836	767	216
175°	800	804	800	804	800	76
180°	803	803	803	803	803	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3202.4	3202.4	3202.4	3202.4	3202.4	3202.4	3202.4	3202.4	3202.4	3202.4	3202.4
2.5°	3185.0	3232.2	3190.8	3185.4	3202.4	3198.6	3192.7	3215.0	3177.2	3215.0	3185.0
5°	3173.4	3227.7	3166.1	3149.9	3178.2	3159.3	3175.8	3208.5	3161.3	3203.8	3156.5
7.5°	3153.6	3201.7	3128.0	3117.5	3145.4	3128.8	3135.7	3181.2	3141.5	3169.4	3126.5
10°	3132.3	3174.8	3100.9	3094.3	3120.2	3103.7	3110.6	3158.0	3120.2	3146.2	3103.3
12.5°	3109.1	3142.2	3068.1	3065.2	3087.4	3076.5	3079.7	3119.6	3089.3	3115.3	3074.4
15°	3062.3	3093.0	3018.8	3007.3	3030.9	3021.4	3026.1	3061.8	3038.1	3054.7	3018.8
17.5°	3004.3	3028.9	2955.1	2920.3	2921.2	2933.1	2955.1	2998.0	2976.8	2998.5	2947.8
20°	2956.0	2984.4	2902.9	2835.2	2830.4	2842.2	2902.9	2946.1	2934.3	2957.9	2886.0
22.5°	2900.0	2918.9	2844.9	2730.6	2714.5	2726.3	2837.2	2888.3	2884.1	2900.1	2810.6
25°	2813.5	2832.4	2697.6	2533.0	2304.0	2518.8	2702.4	2794.2	2794.2	2808.4	2690.4
27.5°	2725.6	2726.1	2482.2	1626.8	1435.0	1568.2	2478.8	2677.8	2700.5	2693.4	2461.4
30°	2663.8	2647.3	2200.1	1315.0	1263.1	1296.1	2202.5	2597.0	2634.8	2608.8	2144.6
32.5°	2592.3	2545.6	1624.4	1209.0	1166.5	1195.8	1570.8	2501.1	2567.2	2511.0	1686.7
35°	2475.4	2352.6	1238.9	1068.9	1026.4	1064.2	1229.3	2311.8	2444.0	2292.9	1280.0
37.5°	2349.4	1870.0	1090.6	851.4	759.8	833.0	1085.3	1850.0	2298.2	1807.0	1089.7
40°	2250.8	1469.2	980.5	622.8	504.7	587.4	973.3	1401.7	2188.0	1508.0	956.4
42.5°	2119.5	1290.6	787.3	395.6	309.6	362.0	754.9	1260.8	2052.8	1306.6	761.2
45°	1888.6	1109.3	466.1	217.0	200.4	209.9	429.9	1088.9	1821.0	1065.3	475.8
47.5°	1495.9	846.0	299.5	184.4	202.4	184.4	290.3	819.2	1412.8	817.7	299.0
50°	1132.7	660.4	231.8	186.7	219.8	186.7	224.6	637.8	1074.7	696.9	229.4
52.5°	839.0	551.8	189.3	204.7	264.2	208.5	184.0	537.2	796.5	562.2	179.2
55°	565.1	432.9	152.1	270.2	362.3	277.2	152.1	420.4	536.1	415.7	147.3
57.5°	358.4	322.0	154.1	347.3	413.5	354.0	156.5	310.4	343.9	311.8	135.2
60°	265.7	253.8	171.5	368.8	444.4	373.5	173.9	244.3	260.8	241.9	144.9
62.5°	219.3	199.9	206.2	399.4	461.8	389.0	210.6	190.7	228.0	182.6	160.4
65°	198.0	129.6	243.9	404.5	456.4	404.5	246.3	122.7	207.7	132.1	217.4
67.5°	178.7	96.1	235.7	401.7	459.3	402.7	229.9	91.7	171.5	89.3	222.2
70°	149.7	86.0	222.2	408.9	442.0	394.7	222.2	83.5	142.5	81.1	260.8
72.5°	124.6	81.6	206.7	377.6	391.7	363.4	208.7	81.2	125.1	73.1	245.4
75°	106.3	80.3	198.0	301.6	287.4	287.4	193.2	78.0	108.7	73.3	190.8
77.5°	79.7	71.2	164.2	196.8	186.0	186.0	161.3	68.7	75.8	64.5	155.0
80°	60.4	65.1	135.2	144.7	137.7	137.7	130.4	62.7	60.4	60.4	128.0
82.5°	46.9	55.4	104.3	106.1	100.9	99.1	101.4	54.9	46.9	50.6	99.0
85°	26.6	38.4	55.5	45.7	38.6	36.3	53.1	36.0	24.2	36.0	53.1
87.5°	9.7	17.8	9.1	8.9	8.9	8.9	9.1	17.8	9.7	15.9	11.0
90°	0.0	2.9	6.9	5.9	5.9	5.9	6.9	2.9	0.0	2.9	6.9
92.5°	14.2	51.1	163.3	53.8	41.5	53.8	163.3	51.1	14.2	51.1	163.3
95°	41.5	126.4	562.8	200.7	123.4	200.7	562.8	126.4	41.5	126.4	562.8
97.5°	78.0	164.5	955.2	581.8	355.1	581.8	955.2	164.5	78.0	164.5	955.2
100°	101.7	186.7	1102.9	983.5	637.9	983.5	1102.9	186.7	101.7	186.7	1102.9
102.5°	128.6	210.4	1084.8	1455.0	1106.3	1455.0	1084.8	210.4	128.6	210.4	1084.8
105°	169.8	245.1	990.4	1891.6	1791.2	1891.6	990.4	245.1	169.8	245.1	990.4
107.5°	214.5	285.3	900.7	1929.4	2035.8	1929.4	900.7	285.3	214.5	285.3	900.7
110°	246.9	311.5	858.1	1882.4	2074.6	1882.4	858.1	311.5	246.9	311.5	858.1



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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°	273.7	337.6	831.2	1797.6	2045.3	1797.6	831.2	337.6	273.7	337.6	831.2
115°	314.0	374.8	806.7	1662.6	1956.1	1662.6	806.7	374.8	314.0	374.8	806.7
117.5°	355.5	410.3	797.2	1538.9	1831.1	1538.9	797.2	410.3	355.5	410.3	797.2
120°	379.2	433.2	794.9	1462.9	1745.7	1462.9	794.9	433.2	379.2	433.2	794.9
122.5°	402.1	455.4	795.7	1396.9	1660.4	1396.9	795.7	455.4	402.1	455.4	795.7
125°	436.4	486.6	795.9	1312.7	1547.3	1312.7	795.9	486.6	436.4	486.6	795.9
127.5°	465.9	517.2	795.7	1249.6	1445.2	1249.6	795.7	517.2	465.9	517.2	795.7
130°	484.8	537.0	794.9	1213.5	1388.3	1213.5	794.9	537.0	484.8	537.0	794.9
132.5°	501.4	555.9	794.1	1180.1	1344.1	1180.1	794.1	555.9	501.4	555.9	794.1
135°	527.3	582.3	791.9	1132.9	1277.7	1132.9	791.9	582.3	527.3	582.3	791.9
137.5°	552.6	608.0	789.7	1084.9	1213.5	1084.9	789.7	608.0	552.6	608.0	789.7
140°	570.7	623.8	788.9	1052.4	1174.0	1052.4	788.9	623.8	570.7	623.8	788.9
142.5°	588.1	638.9	788.9	1021.3	1129.8	1021.3	788.9	638.9	588.1	638.9	788.9
145°	616.1	661.5	789.9	975.7	1068.4	975.7	789.9	661.5	616.1	661.5	789.9
147.5°	643.4	682.8	791.3	936.9	1008.5	936.9	791.3	682.8	643.4	682.8	791.3
150°	661.6	696.3	792.9	913.7	974.6	913.7	792.9	696.3	661.6	696.3	792.9
152.5°	679.7	708.3	793.7	896.1	944.6	896.1	793.7	708.3	679.7	708.3	793.7
155°	703.0	726.2	794.9	873.6	906.4	873.6	794.9	726.2	703.0	726.2	794.9
157.5°	725.2	741.8	796.1	857.0	880.0	857.0	796.1	741.8	725.2	741.8	796.1
160°	738.6	752.1	796.8	846.6	865.0	846.6	796.8	752.1	738.6	752.1	796.8
162.5°	750.4	760.9	796.8	837.8	851.5	837.8	796.8	760.9	750.4	760.9	796.8
165°	767.2	774.0	796.8	826.7	836.3	826.7	796.8	774.0	767.2	774.0	796.8
167.5°	779.1	783.3	797.0	818.3	823.3	818.3	797.0	783.3	779.1	783.3	797.0
170°	787.0	788.9	797.8	812.7	814.6	812.7	797.8	788.9	787.0	788.9	797.8
172.5°	792.5	793.7	799.4	809.5	809.1	809.5	799.4	793.7	792.5	793.7	799.4
175°	799.8	799.8	799.8	805.7	803.8	805.7	799.8	799.8	799.8	799.8	799.8
177.5°	802.8	802.0	801.2	805.1	802.0	805.1	801.2	802.0	802.8	802.0	801.2
180°	802.8	802.8	802.8	802.8	802.8	802.8	802.8	802.8	802.8	802.8	802.8



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3202.4	3202.4	3202.4	3202.4	3202.4	3202.4
2.5°	3177.5	3190.8	3190.8	3183.0	3220.9	3185.0
5°	3145.1	3175.8	3161.6	3161.3	3208.8	3173.4
7.5°	3122.4	3151.2	3137.9	3135.2	3181.9	3153.6
10°	3099.0	3120.2	3110.8	3117.8	3160.7	3132.3
12.5°	3066.2	3091.3	3081.8	3092.7	3131.8	3109.1
15°	3009.6	3030.9	3035.6	3040.6	3085.9	3062.3
17.5°	2916.2	2926.6	2950.2	2983.6	3030.8	3004.3
20°	2842.8	2857.0	2871.2	2929.5	2984.4	2956.0
22.5°	2759.3	2754.6	2787.7	2856.0	2924.6	2900.0
25°	2534.1	2352.3	2553.0	2729.0	2820.6	2813.5
27.5°	1764.4	1531.1	1737.5	2518.9	2711.5	2725.6
30°	1388.6	1280.0	1386.2	2248.4	2630.7	2663.8
32.5°	1232.9	1158.3	1223.0	1711.3	2529.0	2592.3
35°	1063.9	1011.9	1063.9	1280.0	2329.0	2475.4
37.5°	851.5	745.3	849.7	1106.1	1882.8	2349.4
40°	634.5	499.9	615.6	990.2	1504.6	2250.8
42.5°	422.8	322.2	400.1	779.6	1301.5	2119.5
45°	228.8	200.4	219.3	470.9	1062.1	1888.6
47.5°	179.4	189.8	179.4	297.1	812.5	1495.9
50°	172.2	205.3	172.2	229.4	672.2	1132.7
52.5°	187.7	222.7	185.8	181.1	548.5	839.0
55°	212.7	328.4	215.1	147.3	402.2	565.1
57.5°	302.9	369.5	306.2	139.6	309.7	358.4
60°	311.1	398.5	308.8	147.3	239.7	265.7
62.5°	368.0	493.2	367.5	168.6	178.2	219.3
65°	472.0	519.2	476.7	214.9	127.2	198.0
67.5°	448.0	481.6	443.3	230.4	87.6	178.7
70°	440.1	466.1	435.4	263.2	81.3	149.7
72.5°	410.6	413.9	402.1	243.9	73.1	124.6
75°	318.3	297.1	306.5	210.1	73.2	106.3
77.5°	197.8	189.3	190.8	160.4	64.6	79.7
80°	149.6	144.9	142.5	135.2	60.4	60.4
82.5°	111.0	106.3	103.9	104.3	50.6	46.9
85°	50.6	45.9	43.5	60.4	36.0	26.6
87.5°	10.8	10.8	9.0	11.0	14.0	9.7
90°	5.9	5.9	5.9	6.9	2.9	0.0
92.5°	53.8	41.5	53.8	163.3	51.1	14.2
95°	200.7	123.4	200.7	562.8	126.4	41.5
97.5°	581.8	355.1	581.8	955.2	164.5	78.0
100°	983.5	637.9	983.5	1102.9	186.7	101.7
102.5°	1455.0	1106.3	1455.0	1084.8	210.4	128.6
105°	1891.6	1791.2	1891.6	990.4	245.1	169.8
107.5°	1929.4	2035.8	1929.4	900.7	285.3	214.5
110°	1882.4	2074.6	1882.4	858.1	311.5	246.9





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CATALOG NUMBER: SQ2-FA-125U-125D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1797.6	2045.3	1797.6	831.2	337.6	273.7
115°	1662.6	1956.1	1662.6	806.7	374.8	314.0
117.5°	1538.9	1831.1	1538.9	797.2	410.3	355.5
120°	1462.9	1745.7	1462.9	794.9	433.2	379.2
122.5°	1396.9	1660.4	1396.9	795.7	455.4	402.1
125°	1312.7	1547.3	1312.7	795.9	486.6	436.4
127.5°	1249.6	1445.2	1249.6	795.7	517.2	465.9
130°	1213.5	1388.3	1213.5	794.9	537.0	484.8
132.5°	1180.1	1344.1	1180.1	794.1	555.9	501.4
135°	1132.9	1277.7	1132.9	791.9	582.3	527.3
137.5°	1084.9	1213.5	1084.9	789.7	608.0	552.6
140°	1052.4	1174.0	1052.4	788.9	623.8	570.7
142.5°	1021.3	1129.8	1021.3	788.9	638.9	588.1
145°	975.7	1068.4	975.7	789.9	661.5	616.1
147.5°	936.9	1008.5	936.9	791.3	682.8	643.4
150°	913.7	974.6	913.7	792.9	696.3	661.6
152.5°	896.1	944.6	896.1	793.7	708.3	679.7
155°	873.6	906.4	873.6	794.9	726.2	703.0
157.5°	857.0	880.0	857.0	796.1	741.8	725.2
160°	846.6	865.0	846.6	796.8	752.1	738.6
162.5°	837.8	851.5	837.8	796.8	760.9	750.4
165°	826.7	836.3	826.7	796.8	774.0	767.2
167.5°	818.3	823.3	818.3	797.0	783.3	779.1
170°	812.7	814.6	812.7	797.8	788.9	787.0
172.5°	809.5	809.1	809.5	799.4	793.7	792.5
175°	805.7	803.8	805.7	799.8	799.8	799.8
177.5°	805.1	802.0	805.1	801.2	802.0	802.8
180°	802.8	802.8	802.8	802.8	802.8	802.8



TEST NUMBER: P853810

CATALOG NUMBER: SQ2-FA-125U-125D-935-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	13.49	14.24	14.48	15.23	16.53	12.34	13.09	13.33	14.08	15.38
	3H	14.18	14.85	15.18	15.85	17.17	18.49	19.16	19.49	20.16	21.48
	4H	14.59	15.23	15.60	16.23	17.56	19.76	20.40	20.78	21.40	22.73
	6H	14.94	15.53	15.96	16.53	17.87	20.37	20.95	21.39	21.96	23.30
	8H	15.06	15.61	16.09	16.63	17.97	20.49	21.04	21.52	22.06	23.40
	12H	15.13	15.65	16.16	16.67	18.03	20.53	21.06	21.56	22.07	23.43
4H	2H	13.87	14.51	14.89	15.51	16.84	12.87	13.50	13.89	14.50	15.83
	3H	14.87	15.40	15.89	16.43	17.77	19.19	19.72	20.21	20.75	22.09
	4H	15.43	15.91	16.46	16.93	18.30	20.64	21.12	21.67	22.14	23.51
	6H	15.90	16.31	16.94	17.36	18.72	21.37	21.79	22.41	22.83	24.19
	8H	16.07	16.46	17.11	17.49	18.87	21.54	21.93	22.58	22.96	24.34
	12H	16.18	16.53	17.24	17.58	18.96	21.59	21.94	22.65	23.00	24.38
8H	4H	16.52	16.91	17.56	17.95	19.32	20.76	21.14	21.80	22.18	23.56
	6H	17.13	17.45	18.19	18.53	19.90	21.63	21.95	22.70	23.03	24.40
	8H	17.36	17.64	18.44	18.71	20.10	21.88	22.16	22.96	23.23	24.62
	12H	17.53	17.78	18.61	18.84	20.27	22.00	22.25	23.08	23.30	24.74
12H	4H	16.66	17.01	17.72	18.07	19.44	20.71	21.06	21.77	22.12	23.50
	6H	17.40	17.68	18.48	18.75	20.14	21.64	21.92	22.72	22.99	24.38
	8H	17.70	17.94	18.77	19.00	20.44	21.92	22.17	23.00	23.22	24.66