

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: P853774

Luminaire Tested: SQ2-FA-075U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853774  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-075U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

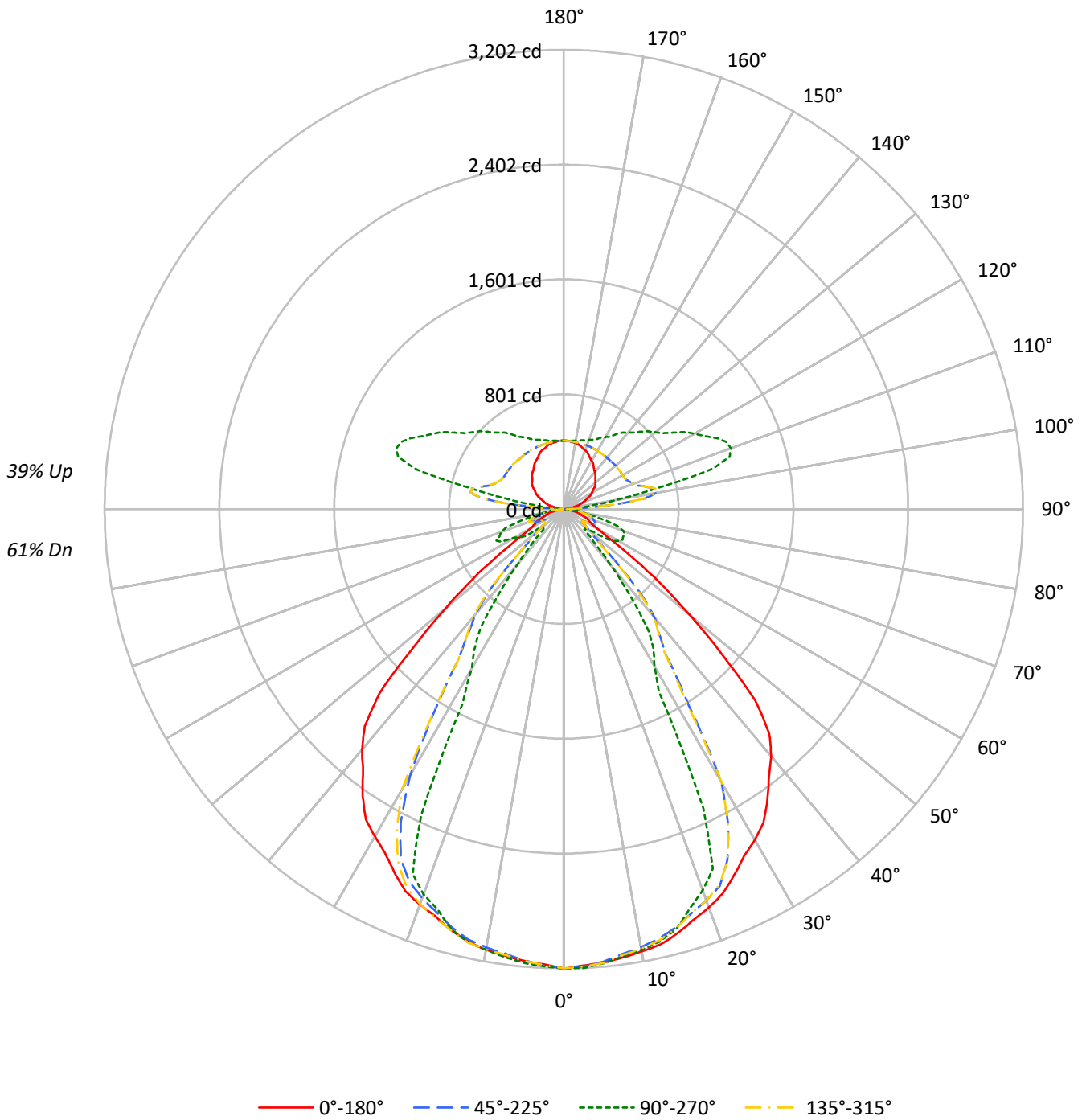
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7630.0 lumens  
Efficiency: N/A  
Efficacy: 105.2 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-Direct  
  
Input Watts (W): 72.5  
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	102	98	94	91	95	92	89	86	81	78	76	70	69	67	61	60	59	54
2	94	87	82	77	88	82	77	73	72	69	66	64	61	59	55	54	52	48
3	87	78	72	66	81	74	68	63	66	61	57	58	55	52	51	48	46	43
4	80	71	64	58	75	67	61	56	60	55	51	53	49	46	47	44	42	39
5	75	64	57	51	70	61	54	49	55	49	45	49	45	41	43	40	38	35
6	70	59	51	46	65	56	49	44	50	45	41	45	41	38	40	37	34	32
7	65	54	46	41	61	51	45	40	46	41	37	42	37	34	37	34	31	29
8	61	50	42	37	57	47	41	36	43	38	34	39	34	31	35	32	29	27
9	57	46	39	34	54	44	37	33	40	35	31	36	32	29	33	29	27	25
10	54	43	36	31	51	41	35	30	37	32	28	34	30	27	31	27	25	23

**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	3.9
10°-20°	855.0	11.2
20°-30°	1165.7	15.3
30°-40°	979.6	12.8
40°-50°	556.4	7.3
50°-60°	295.2	3.9
60°-70°	271.8	3.6
70°-80°	199.6	2.6
80°-90°	52.6	0.7
90°-100°	180.4	2.4
100°-110°	597.9	7.8
110°-120°	593.4	7.8
120°-130°	483.3	6.3
130°-140°	392.8	5.1
140°-150°	305.1	4.0
150°-160°	219.8	2.9
160°-170°	134.6	1.8
170°-180°	45.5	0.6
0°-30°	2322.0	30.4
0°-40°	3301.7	43.3
0°-60°	4153.3	54.4
0°-90°	4677.2	61.3
90°-120°	1371.7	18.0
90°-150°	2552.9	33.5
90°-180°	2953.0	38.7
0°-180°	7630.0	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	4	0	4	0	2
95°	26	78	26	78	26	29
105°	105	1056	105	1056	105	110
115°	187	1173	187	1173	187	184
125°	261	929	261	929	261	232
135°	312	763	312	763	312	241
145°	362	637	362	637	362	227
155°	414	539	414	539	414	191
165°	454	497	454	497	454	128
175°	475	478	475	478	475	45
180°	477	477	477	477	477	



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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	17.4	8.3	8.5	8.5	8.5	8.3	17.4	9.7	15.5	10.3
90°	0.0	1.0	3.0	3.9	3.9	3.9	3.0	1.0	0.0	1.0	3.0
92.5°	7.9	30.5	89.9	29.1	24.5	29.1	89.9	30.5	7.9	30.5	89.9
95°	25.7	75.9	326.8	116.6	78.0	116.6	326.8	75.9	25.7	75.9	326.8
97.5°	47.2	99.7	570.5	332.7	210.3	332.7	570.5	99.7	47.2	99.7	570.5
100°	62.2	112.4	660.6	567.4	376.2	567.4	660.6	112.4	62.2	112.4	660.6
102.5°	78.8	127.5	655.0	867.1	655.0	867.1	655.0	127.5	78.8	127.5	655.0
105°	104.7	149.1	598.4	1128.9	1055.5	1128.9	598.4	149.1	104.7	149.1	598.4
107.5°	131.1	170.7	544.1	1155.5	1211.3	1155.5	544.1	170.7	131.1	170.7	544.1
110°	146.1	185.7	516.4	1129.2	1242.1	1129.2	516.4	185.7	146.1	185.7	516.4



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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°	161.9	200.7	499.8	1082.5	1226.4	1082.5	499.8	200.7	161.9	200.7	499.8
115°	186.6	223.3	481.9	1003.1	1173.0	1003.1	481.9	223.3	186.6	223.3	481.9
117.5°	211.1	243.7	475.3	927.3	1105.5	927.3	475.3	243.7	211.1	243.7	475.3
120°	226.1	258.0	473.0	879.8	1052.6	879.8	473.0	258.0	226.1	258.0	473.0
122.5°	239.5	270.6	473.0	840.7	1000.4	840.7	473.0	270.6	239.5	270.6	473.0
125°	260.7	289.6	473.0	788.2	929.1	788.2	473.0	289.6	260.7	289.6	473.0
127.5°	278.1	306.4	471.8	748.4	868.9	748.4	471.8	306.4	278.1	306.4	471.8
130°	288.3	318.3	471.0	725.2	833.4	725.2	471.0	318.3	288.3	318.3	471.0
132.5°	297.8	328.5	470.2	706.0	803.3	706.0	470.2	328.5	297.8	328.5	470.2
135°	312.0	343.9	469.0	676.4	763.3	676.4	469.0	343.9	312.0	343.9	469.0
137.5°	327.4	358.1	467.8	647.7	724.4	647.7	467.8	358.1	327.4	358.1	467.8
140°	337.7	367.6	467.0	628.6	699.1	628.6	467.0	367.6	337.7	367.6	467.0
142.5°	347.2	376.3	467.8	609.5	672.2	609.5	467.8	376.3	347.2	376.3	467.8
145°	362.4	389.4	468.0	581.8	636.9	581.8	468.0	389.4	362.4	389.4	468.0
147.5°	378.8	401.4	468.2	558.4	599.4	558.4	468.2	401.4	378.8	401.4	468.2
150°	389.0	409.3	469.0	544.8	579.6	544.8	469.0	409.3	389.0	409.3	469.0
152.5°	398.5	418.0	469.8	533.6	561.4	533.6	469.8	418.0	398.5	418.0	469.8
155°	413.7	428.2	471.0	519.8	539.1	519.8	471.0	428.2	413.7	428.2	471.0
157.5°	428.5	439.7	472.2	510.0	523.7	510.0	472.2	439.7	428.5	439.7	472.2
160°	436.4	446.1	473.0	502.8	513.4	502.8	473.0	446.1	436.4	446.1	473.0
162.5°	444.3	451.7	473.0	498.0	506.3	498.0	473.0	451.7	444.3	451.7	473.0
165°	454.2	459.0	473.0	491.8	496.7	491.8	473.0	459.0	454.2	459.0	473.0
167.5°	463.3	465.8	474.0	486.3	488.8	486.3	474.0	465.8	463.3	465.8	474.0
170°	468.0	469.0	474.0	483.8	484.8	483.8	474.0	469.0	468.0	469.0	474.0
172.5°	471.2	472.2	474.7	481.5	481.7	481.5	474.7	472.2	471.2	472.2	474.7
175°	474.9	474.9	475.9	478.9	477.9	478.9	475.9	474.9	474.9	474.9	475.9
177.5°	476.9	476.9	476.1	477.7	476.1	477.7	476.1	476.9	476.9	476.9	476.1
180°	476.9	476.9	476.9	476.9	476.9	476.9	476.9	476.9	476.9	476.9	476.9



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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°	10.5	10.5	8.6	10.3	13.6	9.7
90°	3.9	3.9	3.9	3.0	1.0	0.0
92.5°	29.1	24.5	29.1	89.9	30.5	7.9
95°	116.6	78.0	116.6	326.8	75.9	25.7
97.5°	332.7	210.3	332.7	570.5	99.7	47.2
100°	567.4	376.2	567.4	660.6	112.4	62.2
102.5°	867.1	655.0	867.1	655.0	127.5	78.8
105°	1128.9	1055.5	1128.9	598.4	149.1	104.7
107.5°	1155.5	1211.3	1155.5	544.1	170.7	131.1
110°	1129.2	1242.1	1129.2	516.4	185.7	146.1





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1082.5	1226.4	1082.5	499.8	200.7	161.9
115°	1003.1	1173.0	1003.1	481.9	223.3	186.6
117.5°	927.3	1105.5	927.3	475.3	243.7	211.1
120°	879.8	1052.6	879.8	473.0	258.0	226.1
122.5°	840.7	1000.4	840.7	473.0	270.6	239.5
125°	788.2	929.1	788.2	473.0	289.6	260.7
127.5°	748.4	868.9	748.4	471.8	306.4	278.1
130°	725.2	833.4	725.2	471.0	318.3	288.3
132.5°	706.0	803.3	706.0	470.2	328.5	297.8
135°	676.4	763.3	676.4	469.0	343.9	312.0
137.5°	647.7	724.4	647.7	467.8	358.1	327.4
140°	628.6	699.1	628.6	467.0	367.6	337.7
142.5°	609.5	672.2	609.5	467.8	376.3	347.2
145°	581.8	636.9	581.8	468.0	389.4	362.4
147.5°	558.4	599.4	558.4	468.2	401.4	378.8
150°	544.8	579.6	544.8	469.0	409.3	389.0
152.5°	533.6	561.4	533.6	469.8	418.0	398.5
155°	519.8	539.1	519.8	471.0	428.2	413.7
157.5°	510.0	523.7	510.0	472.2	439.7	428.5
160°	502.8	513.4	502.8	473.0	446.1	436.4
162.5°	498.0	506.3	498.0	473.0	451.7	444.3
165°	491.8	496.7	491.8	473.0	459.0	454.2
167.5°	486.3	488.8	486.3	474.0	465.8	463.3
170°	483.8	484.8	483.8	474.0	469.0	468.0
172.5°	481.5	481.7	481.5	474.7	472.2	471.2
175°	478.9	477.9	478.9	475.9	474.9	474.9
177.5°	477.7	476.1	477.7	476.1	476.9	476.9
180°	476.9	476.9	476.9	476.9	476.9	476.9

TEST NUMBER: P853774

CATALOG NUMBER: SQ2-FA-075U-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	14.65	15.49	15.53	16.37	17.48	13.50	14.34	14.38	15.22	16.33
	3H	15.35	16.10	16.24	16.99	18.13	19.66	20.41	20.55	21.30	22.43
	4H	15.76	16.47	16.66	17.36	18.51	20.93	21.64	21.84	22.54	23.68
	6H	16.11	16.77	17.03	17.67	18.83	21.54	22.19	22.45	23.09	24.25
	8H	16.23	16.85	17.15	17.77	18.93	21.66	22.28	22.59	23.20	24.36
	12H	16.30	16.89	17.23	17.80	18.98	21.70	22.29	22.63	23.21	24.39
4H	2H	15.04	15.75	15.95	16.65	17.79	14.04	14.75	14.95	15.64	16.79
	3H	16.04	16.63	16.96	17.56	18.72	20.36	20.95	21.28	21.88	23.04
	4H	16.60	17.14	17.53	18.06	19.25	21.81	22.35	22.74	23.27	24.46
	6H	17.08	17.54	18.02	18.49	19.68	22.55	23.01	23.49	23.96	25.15
	8H	17.25	17.68	18.19	18.62	19.82	22.72	23.15	23.66	24.09	25.29
	12H	17.37	17.75	18.33	18.71	19.92	22.78	23.17	23.74	24.13	25.33
8H	4H	17.70	18.13	18.65	19.08	20.27	21.94	22.37	22.88	23.31	24.51
	6H	18.31	18.67	19.28	19.65	20.85	22.82	23.17	23.78	24.15	25.35
	8H	18.55	18.86	19.52	19.83	21.05	23.07	23.38	24.04	24.35	25.57
	12H	18.72	18.99	19.70	19.96	21.22	23.19	23.46	24.17	24.43	25.69
12H	4H	17.85	18.24	18.81	19.19	20.40	21.90	22.29	22.86	23.24	24.45
	6H	18.59	18.90	19.56	19.87	21.09	22.83	23.14	23.80	24.11	25.33
	8H	18.89	19.16	19.86	20.13	21.39	23.11	23.38	24.09	24.35	25.61