

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: P855262

Luminaire Tested: SQ2-FA-025U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855262
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-025U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

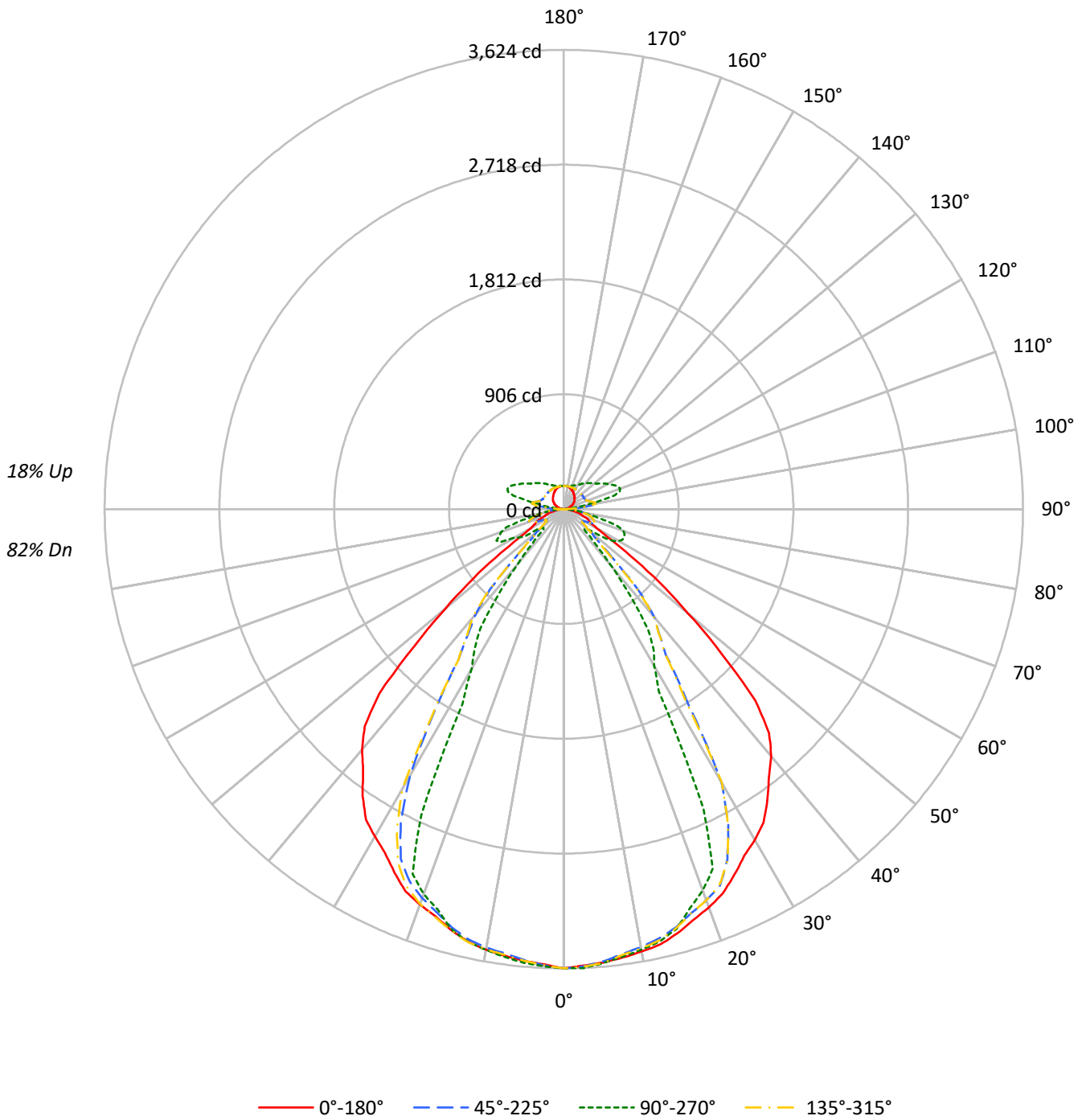
Lumens per Lamp: N/A
Luminaire Lumens: 6429.9 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 56.6
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82
1	107	103	99	96	102	99	96	93	92	89	87	85	83	81	79	77	76	73
2	99	92	87	82	95	89	84	80	83	79	76	77	74	71	72	69	67	64
3	92	83	77	72	88	81	75	70	75	70	66	70	67	63	66	63	60	57
4	86	76	69	63	82	73	67	62	69	64	59	65	60	57	61	57	54	52
5	80	69	62	56	77	67	60	55	63	58	53	60	55	51	56	52	49	47
6	75	64	56	51	72	62	55	50	58	53	48	55	50	47	52	48	45	43
7	70	59	51	46	67	57	50	45	54	48	44	51	46	43	49	44	41	39
8	66	54	47	42	63	53	46	42	50	45	40	48	43	39	46	41	38	36
9	62	51	44	39	60	49	43	38	47	41	37	45	40	36	43	38	35	33
10	59	47	40	36	57	46	40	35	44	38	34	42	37	34	40	36	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	58513	58513	58513	58513
5°	58204	58294	57982	58248
10°	58115	57890	57890	57890
15°	57927	57334	57469	57334
20°	57477	55036	57055	55553
25°	56721	46451	56333	47423
30°	56201	26649	55590	27005
35°	55215	22894	54515	22570
40°	53685	12039	52189	11923
45°	48802	5179	47056	5179
50°	32197	6247	30549	5835
55°	18002	11541	17078	10460
60°	9710	16239	9529	14564
65°	8562	19733	8978	22449
70°	7997	23613	7615	24902
75°	7505	20287	7673	20973
80°	6360	14486	6360	15249
85°	5576	8096	5076	9615

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 48802 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.0	5.3
10°-20°	967.5	15.0
20°-30°	1319.2	20.5
30°-40°	1108.6	17.2
40°-50°	629.7	9.8
50°-60°	334.1	5.2
60°-70°	307.6	4.8
70°-80°	225.8	3.5
80°-90°	59.4	0.9
90°-100°	74.1	1.2
100°-110°	230.6	3.6
110°-120°	225.6	3.5
120°-130°	184.2	2.9
130°-140°	150.7	2.3
140°-150°	117.6	1.8
150°-160°	84.9	1.3
160°-170°	51.9	0.8
170°-180°	17.5	0.3
0°-30°	2627.8	40.9
0°-40°	3736.4	58.1
0°-60°	4700.1	73.1
0°-90°	5293.0	82.3
90°-120°	530.3	8.2
90°-150°	982.7	15.3
90°-180°	1137.0	17.7
0°-180°	6429.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3624	3624	3624	3624	3624	
5°	3591	3597	3578	3594	3591	341
15°	3466	3430	3438	3430	3466	977
25°	3184	2607	3162	2662	3184	1468
35°	2801	1162	2766	1145	2801	1749
45°	2137	227	2061	227	2137	1563
55°	640	410	607	372	640	616
65°	224	516	235	588	224	225
75°	120	325	123	336	120	124
85°	30	44	27	52	30	33
90°	0	3	0	3	0	2
95°	10	33	10	33	10	12
105°	40	414	40	414	40	43
115°	72	445	72	445	72	71
125°	100	351	100	351	100	89
135°	120	290	120	290	120	93
145°	140	243	140	243	140	88
155°	161	207	161	207	161	74
165°	176	191	176	191	176	50
175°	183	183	183	183	183	17
180°	183	183	183	183	183	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0
2.5°	3604.3	3657.8	3610.9	3604.8	3624.0	3619.7	3613.1	3638.3	3595.5	3638.3	3604.3
5°	3591.2	3652.7	3583.0	3564.6	3596.7	3575.3	3593.9	3630.9	3577.5	3625.6	3572.1
7.5°	3568.8	3623.2	3539.8	3528.0	3559.5	3540.7	3548.6	3600.0	3555.1	3586.7	3538.1
10°	3544.7	3592.8	3509.2	3501.7	3531.0	3512.3	3520.2	3573.8	3531.0	3560.4	3511.9
12.5°	3518.5	3555.9	3472.1	3468.8	3493.9	3481.6	3485.2	3530.3	3496.0	3525.5	3479.2
15°	3465.5	3500.2	3416.3	3403.3	3430.0	3419.2	3424.5	3464.9	3438.1	3456.9	3416.3
17.5°	3399.9	3427.7	3344.2	3304.8	3305.8	3319.3	3344.2	3392.7	3368.7	3393.3	3335.9
20°	3345.2	3377.3	3285.1	3208.5	3203.1	3216.4	3285.1	3334.0	3320.6	3347.3	3266.0
22.5°	3281.8	3303.2	3219.5	3090.1	3071.9	3085.3	3210.8	3268.6	3263.8	3281.9	3180.7
25°	3183.9	3205.3	3052.8	2866.5	2607.4	2850.4	3058.2	3162.1	3162.1	3178.2	3044.6
27.5°	3084.5	3085.0	2809.0	1841.0	1623.9	1774.7	2805.2	3030.4	3056.1	3048.0	2785.5
30°	3014.5	2995.9	2489.8	1488.1	1429.4	1466.7	2492.5	2938.9	2981.7	2952.3	2427.0
32.5°	2933.6	2880.8	1838.3	1368.2	1320.1	1353.2	1777.6	2830.4	2905.2	2841.6	1908.8
35°	2801.3	2662.4	1402.0	1209.6	1161.5	1204.3	1391.2	2616.2	2765.8	2594.8	1448.5
37.5°	2658.7	2116.2	1234.2	963.5	859.8	942.7	1228.2	2093.6	2600.8	2044.9	1233.2
40°	2547.1	1662.6	1109.6	704.8	571.2	664.7	1101.4	1586.3	2476.1	1706.5	1082.3
42.5°	2398.6	1460.5	891.0	447.7	350.4	409.7	854.3	1426.8	2323.1	1478.6	861.4
45°	2137.3	1255.4	527.5	245.6	226.8	237.5	486.5	1232.3	2060.8	1205.6	538.4
47.5°	1692.9	957.4	338.9	208.7	229.0	208.7	328.5	927.1	1598.8	925.4	338.4
50°	1281.8	747.4	262.3	211.3	248.7	211.3	254.2	721.8	1216.2	788.7	259.6
52.5°	949.5	624.5	214.2	231.7	299.0	236.0	208.2	607.9	901.4	636.2	202.8
55°	639.5	489.9	172.1	305.8	410.0	313.7	172.1	475.8	606.7	470.4	166.7
57.5°	405.6	364.4	174.4	393.0	467.9	400.6	177.1	351.3	389.2	352.9	153.0
60°	300.7	287.2	194.1	417.4	502.9	422.7	196.8	276.5	295.1	273.7	164.0
62.5°	248.2	226.2	233.3	452.0	522.6	440.2	238.3	215.8	258.0	206.6	181.5
65°	224.1	146.7	276.0	457.8	516.5	457.8	278.7	138.9	235.0	149.5	246.0
67.5°	202.2	108.8	266.7	454.6	519.8	455.7	260.2	103.8	194.1	101.1	251.5
70°	169.4	97.3	251.5	462.7	500.2	446.7	251.5	94.5	161.3	91.8	295.1
72.5°	141.0	92.3	233.9	427.3	443.3	411.2	236.2	91.9	141.6	82.7	277.7
75°	120.3	90.9	224.1	341.3	325.2	325.2	218.6	88.3	123.0	83.0	215.9
77.5°	90.2	80.6	185.8	222.7	210.5	210.5	182.5	77.7	85.8	73.0	175.4
80°	68.4	73.7	153.0	163.8	155.8	155.8	147.6	71.0	68.4	68.4	144.9
82.5°	53.1	62.7	118.0	120.1	114.2	112.1	114.8	62.1	53.1	57.3	112.0
85°	30.1	43.5	62.8	51.7	43.7	41.1	60.1	40.7	27.4	40.7	60.1
87.5°	11.0	19.7	9.4	9.4	9.4	9.4	9.4	19.7	11.0	17.5	11.7
90°	0.0	1.1	3.4	3.4	3.4	3.4	3.4	1.1	0.0	1.1	3.4
92.5°	3.6	12.6	42.9	14.1	11.4	14.1	42.9	12.6	3.6	12.6	42.9
95°	10.1	29.9	136.0	50.1	32.6	50.1	136.0	29.9	10.1	29.9	136.0
97.5°	18.4	38.8	225.2	140.2	88.4	140.2	225.2	38.8	18.4	38.8	225.2
100°	24.7	43.5	253.9	237.5	158.4	237.5	253.9	43.5	24.7	43.5	253.9
102.5°	31.0	48.8	248.6	339.3	266.4	339.3	248.6	48.8	31.0	48.8	248.6
105°	40.5	56.9	227.0	433.3	413.6	433.3	227.0	56.9	40.5	56.9	227.0
107.5°	49.9	65.3	206.3	440.6	462.4	440.6	206.3	65.3	49.9	65.3	206.3
110°	56.2	71.5	195.6	430.3	473.1	430.3	195.6	71.5	56.2	71.5	195.6



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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°	62.5	77.0	190.1	411.7	465.9	411.7	190.1	77.0	62.5	77.0	190.1
115°	72.0	85.1	184.3	380.2	445.1	380.2	184.3	85.1	72.0	85.1	184.3
117.5°	81.1	93.2	181.9	350.1	416.5	350.1	181.9	93.2	81.1	93.2	181.9
120°	86.6	98.7	181.0	332.9	396.8	332.9	181.0	98.7	86.6	98.7	181.0
122.5°	91.9	104.0	181.9	318.5	377.0	318.5	181.9	104.0	91.9	104.0	181.9
125°	100.0	111.0	182.1	299.0	350.6	299.0	182.1	111.0	100.0	111.0	182.1
127.5°	106.5	117.8	182.1	284.4	328.4	284.4	182.1	117.8	106.5	117.8	182.1
130°	110.1	122.2	182.1	276.2	315.8	276.2	182.1	122.2	110.1	122.2	182.1
132.5°	114.6	126.7	181.2	269.0	305.9	269.0	181.2	126.7	114.6	126.7	181.2
135°	120.3	133.4	181.0	258.1	289.9	258.1	181.0	133.4	120.3	133.4	181.0
137.5°	126.7	138.9	181.0	247.3	276.2	247.3	181.0	138.9	126.7	138.9	181.0
140°	130.4	142.5	181.0	240.0	266.4	240.0	181.0	142.5	130.4	142.5	181.0
142.5°	134.9	146.1	181.0	232.8	256.4	232.8	181.0	146.1	134.9	146.1	181.0
145°	140.4	151.4	181.0	222.9	242.7	222.9	181.0	151.4	140.4	151.4	181.0
147.5°	147.2	156.6	182.1	213.9	229.5	213.9	182.1	156.6	147.2	156.6	182.1
150°	151.8	159.5	182.1	209.4	221.4	209.4	182.1	159.5	151.8	159.5	182.1
152.5°	155.3	162.2	182.1	204.8	215.1	204.8	182.1	162.2	155.3	162.2	182.1
155°	160.7	166.2	182.1	200.2	206.8	200.2	182.1	166.2	160.7	166.2	182.1
157.5°	166.1	170.3	182.1	196.1	200.3	196.1	182.1	170.3	166.1	170.3	182.1
160°	169.7	173.0	182.1	193.4	196.7	193.4	182.1	173.0	169.7	173.0	182.1
162.5°	172.4	174.8	182.1	191.6	194.0	191.6	182.1	174.8	172.4	174.8	182.1
165°	176.4	177.6	183.2	188.9	191.0	188.9	183.2	177.6	176.4	177.6	183.2
167.5°	178.9	179.1	182.1	187.3	188.3	187.3	182.1	179.1	178.9	179.1	182.1
170°	179.8	181.0	182.1	185.5	186.6	185.5	182.1	181.0	179.8	181.0	182.1
172.5°	181.6	181.9	183.0	184.6	184.8	184.6	183.0	181.9	181.6	181.9	183.0
175°	183.2	183.2	183.2	184.2	183.2	184.2	183.2	183.2	183.2	183.2	183.2
177.5°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3624.0	3624.0	3624.0	3624.0	3624.0	3624.0
2.5°	3595.9	3610.9	3610.9	3602.1	3645.0	3604.3
5°	3559.2	3593.9	3577.9	3577.5	3631.3	3591.2
7.5°	3533.5	3566.1	3551.0	3548.0	3600.8	3568.8
10°	3507.0	3531.0	3520.4	3528.3	3576.8	3544.7
12.5°	3469.9	3498.3	3487.6	3499.9	3544.1	3518.5
15°	3405.9	3430.0	3435.3	3440.9	3492.2	3465.5
17.5°	3300.2	3311.9	3338.6	3376.4	3429.8	3399.9
20°	3217.1	3233.2	3249.2	3315.2	3377.3	3345.2
22.5°	3122.6	3117.3	3154.7	3232.0	3309.7	3281.8
25°	2867.7	2662.0	2889.1	3088.3	3192.0	3183.9
27.5°	1996.7	1732.7	1966.3	2850.5	3068.5	3084.5
30°	1571.4	1448.5	1568.7	2544.4	2977.1	3014.5
32.5°	1395.2	1310.8	1384.0	1936.6	2862.0	2933.6
35°	1204.0	1145.1	1204.0	1448.5	2635.6	2801.3
37.5°	963.6	843.4	961.6	1251.7	2130.7	2658.7
40°	718.0	565.7	696.7	1120.6	1702.7	2547.1
42.5°	478.5	364.6	452.8	882.2	1472.9	2398.6
45°	258.9	226.8	248.2	532.9	1201.9	2137.3
47.5°	203.0	214.8	203.0	336.2	919.5	1692.9
50°	194.9	232.3	194.9	259.6	760.7	1281.8
52.5°	212.4	252.0	210.3	204.9	620.7	949.5
55°	240.7	371.6	243.4	166.7	455.2	639.5
57.5°	342.8	418.1	346.5	158.0	350.5	405.6
60°	352.1	451.0	349.5	166.7	271.3	300.7
62.5°	416.5	558.1	415.9	190.8	201.7	248.2
65°	534.1	587.6	539.5	243.2	143.9	224.1
67.5°	507.0	545.0	501.7	260.7	99.1	202.2
70°	498.0	527.5	492.7	297.9	92.0	169.4
72.5°	464.7	468.4	455.0	276.0	82.7	141.0
75°	360.2	336.2	346.9	237.8	82.8	120.3
77.5°	223.8	214.2	215.9	181.5	73.1	90.2
80°	169.3	164.0	161.3	153.0	68.4	68.4
82.5°	125.6	120.3	117.6	118.0	57.3	53.1
85°	57.3	51.9	49.2	68.4	40.7	30.1
87.5°	11.7	11.7	9.5	11.7	15.4	11.0
90°	3.4	3.4	3.4	3.4	1.1	0.0
92.5°	14.1	11.4	14.1	42.9	12.6	3.6
95°	50.1	32.6	50.1	136.0	29.9	10.1
97.5°	140.2	88.4	140.2	225.2	38.8	18.4
100°	237.5	158.4	237.5	253.9	43.5	24.7
102.5°	339.3	266.4	339.3	248.6	48.8	31.0
105°	433.3	413.6	433.3	227.0	56.9	40.5
107.5°	440.6	462.4	440.6	206.3	65.3	49.9
110°	430.3	473.1	430.3	195.6	71.5	56.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	411.7	465.9	411.7	190.1	77.0	62.5
115°	380.2	445.1	380.2	184.3	85.1	72.0
117.5°	350.1	416.5	350.1	181.9	93.2	81.1
120°	332.9	396.8	332.9	181.0	98.7	86.6
122.5°	318.5	377.0	318.5	181.9	104.0	91.9
125°	299.0	350.6	299.0	182.1	111.0	100.0
127.5°	284.4	328.4	284.4	182.1	117.8	106.5
130°	276.2	315.8	276.2	182.1	122.2	110.1
132.5°	269.0	305.9	269.0	181.2	126.7	114.6
135°	258.1	289.9	258.1	181.0	133.4	120.3
137.5°	247.3	276.2	247.3	181.0	138.9	126.7
140°	240.0	266.4	240.0	181.0	142.5	130.4
142.5°	232.8	256.4	232.8	181.0	146.1	134.9
145°	222.9	242.7	222.9	181.0	151.4	140.4
147.5°	213.9	229.5	213.9	182.1	156.6	147.2
150°	209.4	221.4	209.4	182.1	159.5	151.8
152.5°	204.8	215.1	204.8	182.1	162.2	155.3
155°	200.2	206.8	200.2	182.1	166.2	160.7
157.5°	196.1	200.3	196.1	182.1	170.3	166.1
160°	193.4	196.7	193.4	182.1	173.0	169.7
162.5°	191.6	194.0	191.6	182.1	174.8	172.4
165°	188.9	191.0	188.9	183.2	177.6	176.4
167.5°	187.3	188.3	187.3	182.1	179.1	178.9
170°	185.5	186.6	185.5	182.1	181.0	179.8
172.5°	184.6	184.8	184.6	183.0	181.9	181.6
175°	184.2	183.2	184.2	183.2	183.2	183.2
177.5°	183.2	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2	183.2

TEST NUMBER: P855262

CATALOG NUMBER: SQ2-FA-025U-125D-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	16.77	17.82	17.42	18.45	19.18	15.63	16.67	16.27	17.31	18.03
	3H	17.49	18.42	18.14	19.06	19.83	21.79	22.72	22.45	23.37	24.14
	4H	17.90	18.78	18.58	19.44	20.22	23.08	23.95	23.75	24.61	25.39
	6H	18.27	19.07	18.95	19.74	20.53	23.69	24.50	24.38	25.17	25.96
	8H	18.39	19.15	19.09	19.84	20.64	23.82	24.59	24.52	25.28	26.07
	12H	18.47	19.20	19.17	19.88	20.70	23.87	24.60	24.57	25.28	26.10
4H	2H	17.19	18.06	17.86	18.72	19.50	16.18	17.06	16.86	17.72	18.50
	3H	18.20	18.93	18.88	19.62	20.42	22.52	23.25	23.21	23.95	24.74
	4H	18.76	19.42	19.47	20.13	20.95	23.97	24.63	24.68	25.34	26.16
	6H	19.25	19.82	19.97	20.55	21.38	24.72	25.29	25.44	26.02	26.86
	8H	19.42	19.95	20.15	20.68	21.53	24.89	25.42	25.62	26.15	26.99
	12H	19.55	20.02	20.29	20.77	21.62	24.96	25.43	25.70	26.18	27.03
8H	4H	19.87	20.41	20.60	21.13	21.98	24.11	24.64	24.84	25.36	26.21
	6H	20.49	20.92	21.24	21.69	22.54	24.99	25.43	25.75	26.20	27.05
	8H	20.72	21.11	21.49	21.88	22.75	25.24	25.63	26.01	26.40	27.27
	12H	20.90	21.24	21.67	22.00	22.93	25.37	25.71	26.14	26.47	27.40
12H	4H	20.03	20.50	20.77	21.25	22.10	24.08	24.55	24.82	25.30	26.15
	6H	20.76	21.15	21.53	21.92	22.79	25.00	25.39	25.77	26.16	27.03
	8H	21.07	21.41	21.84	22.17	23.10	25.29	25.63	26.06	26.39	27.32