

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: P855107

Luminaire Tested: SQ2-PR1-075U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855107
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-075U-125D-835-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

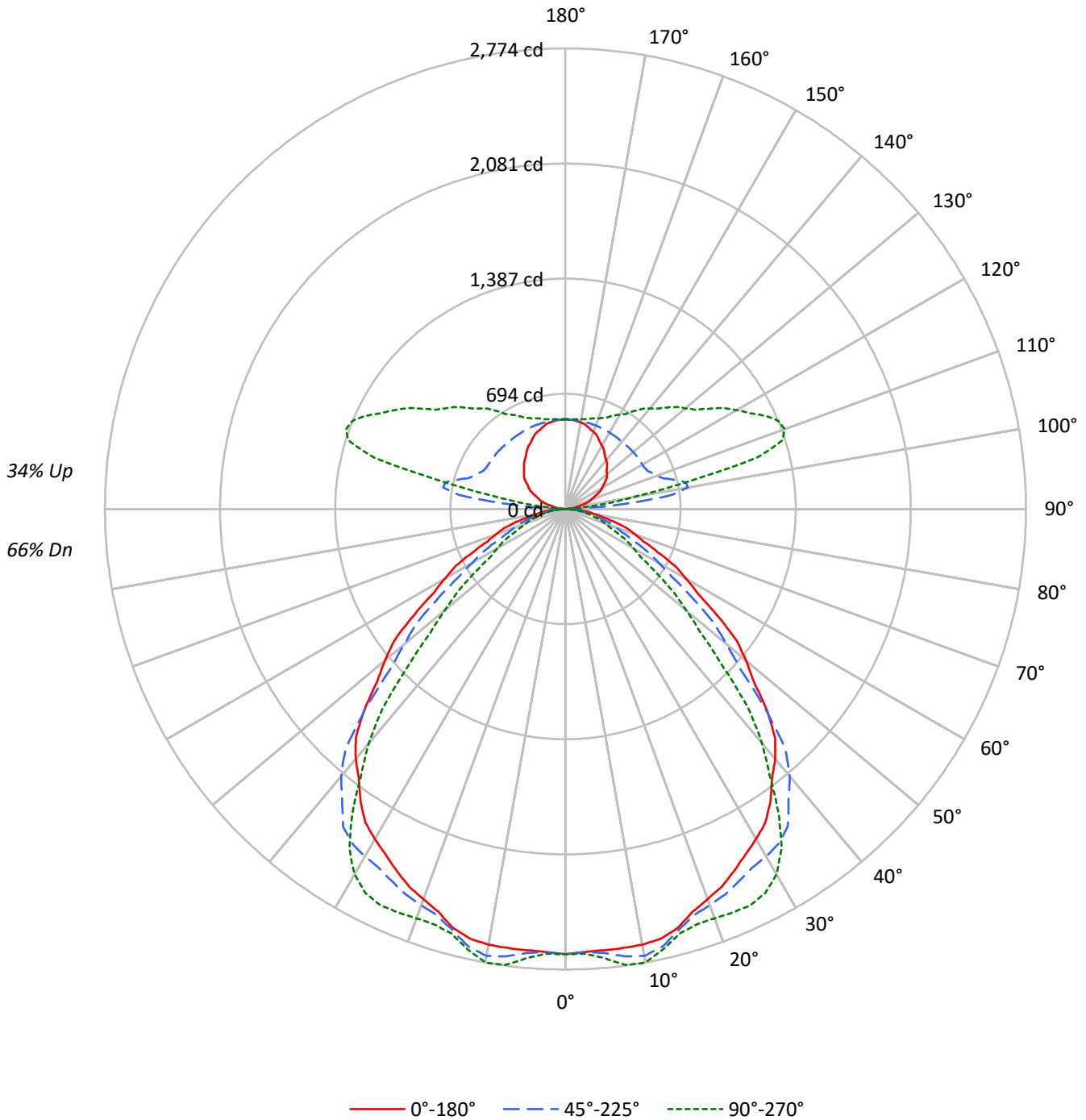
Lumens per Lamp: N/A
Luminaire Lumens: 9791.8 lumens
Efficiency: N/A
Efficacy: 135.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

TEST NUMBER: P855107

CATALOG NUMBER: SQ2-PR1-075U-125D-835-UNV-STD-W-4

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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	102	98	94	91	96	93	89	86	82	80	78	73	71	69	64	63	61	57
2	94	87	81	76	88	82	77	72	73	69	66	65	62	59	57	55	53	49
3	86	77	70	64	81	73	66	61	65	60	56	58	54	51	51	48	46	43
4	79	69	61	55	74	65	58	53	58	53	48	52	48	44	46	43	40	37
5	73	61	54	48	69	58	51	46	53	47	42	47	42	39	42	38	35	33
6	67	55	47	42	63	53	45	40	48	42	37	43	38	34	38	34	31	29
7	62	50	42	37	59	48	41	36	43	37	33	39	34	31	35	31	28	26
8	58	46	38	33	55	44	37	32	40	34	30	36	31	27	32	28	25	23
9	54	42	35	30	51	40	33	29	37	31	27	33	28	25	30	26	23	21
10	51	39	31	27	48	37	30	26	34	28	24	31	26	23	28	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43289	43289	43289
5°	43232	43499	44031
10°	43688	44809	45479
15°	43674	43903	44267
20°	42969	43625	45082
25°	42845	44064	46935
30°	42800	45043	47386
35°	42393	46006	44118
40°	41416	44297	38824
45°	39192	38879	30702
50°	35628	31785	23820
55°	31311	26156	18539
60°	27093	20919	15268
65°	23389	17333	13364
70°	21031	15352	11873
75°	19264	13300	10917
80°	16774	10674	10674
85°	12153	9615	5076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 42361 cd/sqm



TEST NUMBER: P855107

CATALOG NUMBER: SQ2-PR1-075U-125D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.9	2.6
10°-20°	749.5	7.7
20°-30°	1158.6	11.8
30°-40°	1393.5	14.2
40°-50°	1251.2	12.8
50°-60°	838.3	8.6
60°-70°	487.6	5.0
70°-80°	250.4	2.6
80°-90°	62.3	0.6
90°-100°	204.1	2.1
100°-110°	676.6	6.9
110°-120°	671.6	6.9
120°-130°	547.0	5.6
130°-140°	444.6	4.5
140°-150°	345.2	3.5
150°-160°	248.7	2.5
160°-170°	152.3	1.6
170°-180°	51.5	0.5
0°-30°	2167.0	22.1
0°-40°	3560.5	36.4
0°-60°	5650.0	57.7
0°-90°	6450.3	65.9
90°-120°	1552.3	15.9
90°-150°	2889.0	29.5
90°-180°	3342.0	34.1
0°-180°	9791.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2667	2713	2684	2690	2717	255
15°	2613	2720	2626	2635	2648	734
25°	2405	2501	2473	2565	2635	1109
35°	2151	2170	2334	2289	2238	1341
45°	1716	1855	1703	1436	1345	1313
55°	1112	1155	929	718	659	1000
65°	612	626	454	369	350	619
75°	309	301	213	180	175	328
85°	66	52	52	35	27	81
90°	0	1	3	4	4	4
95°	29	86	370	132	88	33
105°	118	169	677	1278	1194	125
115°	211	253	545	1135	1327	209
125°	295	328	535	892	1051	262
135°	353	389	531	766	864	273
145°	410	441	530	658	721	257
155°	468	485	533	588	610	216
165°	514	519	535	557	562	145
175°	537	537	539	542	541	51
180°	540	540	540	540	540	



TEST NUMBER: P855107

CATALOG NUMBER: SQ2-PR1-075U-125D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2681.1	2681.1	2681.1	2681.1	2681.1
2.5°	2670.2	2702.2	2672.3	2674.7	2681.1
5°	2667.4	2712.8	2683.9	2690.0	2716.7
7.5°	2666.9	2731.6	2717.7	2734.3	2769.6
10°	2664.7	2742.2	2733.1	2736.6	2774.0
12.5°	2651.6	2741.9	2700.3	2696.9	2717.1
15°	2612.8	2719.6	2626.5	2635.0	2648.3
17.5°	2544.4	2656.1	2567.4	2597.5	2623.8
20°	2500.8	2610.3	2539.0	2578.3	2623.8
22.5°	2461.4	2570.9	2512.7	2567.7	2630.3
25°	2405.0	2501.3	2473.4	2565.1	2634.6
27.5°	2346.1	2402.6	2435.7	2558.7	2607.4
30°	2295.7	2333.2	2416.0	2523.0	2541.7
32.5°	2241.0	2263.6	2389.7	2445.5	2421.4
35°	2150.8	2169.6	2334.1	2289.1	2238.3
37.5°	2043.8	2082.3	2208.8	2079.7	2021.4
40°	1965.0	2029.2	2101.7	1908.9	1842.0
42.5°	1868.8	1971.5	1959.6	1713.9	1632.2
45°	1716.4	1855.2	1702.7	1435.5	1344.6
47.5°	1536.5	1679.2	1429.4	1190.7	1105.7
50°	1418.4	1533.4	1265.4	1041.9	948.3
52.5°	1298.2	1381.1	1125.4	902.2	817.2
55°	1112.3	1155.1	929.2	717.5	658.6
57.5°	941.8	969.0	759.2	579.5	536.2
60°	839.0	857.8	647.8	507.6	472.8
62.5°	745.0	759.5	558.1	446.6	420.3
65°	612.2	625.6	453.7	368.6	349.8
67.5°	506.8	513.7	373.3	306.2	288.6
70°	445.5	448.1	325.2	264.8	251.5
72.5°	390.9	387.0	279.3	230.0	220.8
75°	308.8	300.8	213.2	180.3	175.0
77.5°	230.6	222.1	149.7	138.9	138.9
80°	180.4	169.6	114.8	114.8	114.8
82.5°	134.4	119.5	88.5	88.5	86.3
85°	65.6	52.3	51.9	35.3	27.4
87.5°	17.5	17.7	7.2	7.5	7.5
90°	0.0	1.1	3.4	4.4	4.4
92.5°	8.9	34.5	101.7	32.9	27.7
95°	29.1	85.9	369.8	132.0	88.3
97.5°	53.4	112.8	645.6	376.5	238.0
100°	70.4	127.2	747.6	642.1	425.7
102.5°	89.2	144.3	741.2	981.3	741.2
105°	118.5	168.7	677.2	1277.5	1194.5
107.5°	148.4	193.2	615.7	1307.6	1370.8
110°	165.3	210.1	584.4	1277.9	1405.6



TEST NUMBER: P855107

CATALOG NUMBER: SQ2-PR1-075U-125D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	183.2	227.1	565.6	1225.0	1387.9
115°	211.2	252.7	545.3	1135.2	1327.4
117.5°	238.9	275.8	537.9	1049.4	1251.1
120°	255.9	292.0	535.3	995.6	1191.2
122.5°	271.0	306.2	535.3	951.4	1132.1
125°	295.0	327.7	535.3	892.0	1051.4
127.5°	314.7	346.7	533.9	846.9	983.3
130°	326.3	360.2	533.0	820.7	943.1
132.5°	337.0	371.8	532.1	799.0	909.1
135°	353.1	389.2	530.8	765.5	863.8
137.5°	370.5	405.2	529.4	733.0	819.8
140°	382.2	416.0	528.5	711.4	791.1
142.5°	392.9	425.8	529.4	689.7	760.7
145°	410.1	440.7	529.6	658.4	720.8
147.5°	428.7	454.2	529.8	631.9	678.3
150°	440.2	463.2	530.8	616.5	655.9
152.5°	451.0	473.0	531.7	603.9	635.3
155°	468.2	484.6	533.0	588.2	610.1
157.5°	484.9	497.6	534.4	577.1	592.7
160°	493.9	504.8	535.3	569.0	581.0
162.5°	502.8	511.2	535.3	563.6	573.0
165°	514.0	519.4	535.3	556.6	562.1
167.5°	524.3	527.1	536.4	550.3	553.2
170°	529.6	530.8	536.4	547.5	548.6
172.5°	533.2	534.4	537.2	544.9	545.1
175°	537.4	537.4	538.6	542.0	540.8
177.5°	539.7	539.7	538.8	540.6	538.8
180°	539.7	539.7	539.7	539.7	539.7

TEST NUMBER: P855107

CATALOG NUMBER: SQ2-PR1-075U-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	21.24	22.21	22.06	23.04	24.07	17.97	18.93	18.79	19.77	20.80
	3H	22.48	23.35	23.32	24.19	25.25	19.04	19.90	19.87	20.75	21.80
	4H	22.94	23.75	23.79	24.60	25.67	19.45	20.26	20.30	21.11	22.18
	6H	23.26	24.01	24.12	24.87	25.95	19.78	20.53	20.64	21.39	22.47
	8H	23.35	24.06	24.22	24.93	26.02	19.87	20.58	20.74	21.46	22.54
	12H	23.38	24.06	24.25	24.93	26.03	19.88	20.56	20.76	21.43	22.54
4H	2H	21.33	22.15	22.19	23.00	24.06	18.55	19.36	19.40	20.21	21.28
	3H	22.82	23.49	23.68	24.37	25.45	19.83	20.50	20.69	21.38	22.46
	4H	23.41	24.02	24.29	24.90	26.02	20.34	20.95	21.21	21.83	22.94
	6H	23.87	24.40	24.76	25.30	26.42	20.78	21.30	21.67	22.21	23.32
	8H	24.01	24.50	24.90	25.40	26.52	20.90	21.39	21.80	22.29	23.42
	12H	24.07	24.51	24.98	25.42	26.56	20.93	21.37	21.84	22.29	23.42
8H	4H	23.45	23.94	24.34	24.84	25.96	20.65	21.14	21.54	22.04	23.17
	6H	24.00	24.41	24.92	25.35	26.47	21.19	21.59	22.11	22.53	23.66
	8H	24.20	24.56	25.13	25.49	26.63	21.37	21.73	22.30	22.67	23.81
	12H	24.31	24.62	25.24	25.55	26.74	21.44	21.76	22.37	22.68	23.88
12H	4H	23.41	23.85	24.32	24.77	25.90	20.67	21.11	21.58	22.03	23.16
	6H	23.99	24.35	24.92	25.28	26.42	21.25	21.61	22.18	22.54	23.68
	8H	24.20	24.52	25.13	25.44	26.64	21.46	21.78	22.39	22.70	23.90