

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: P855087

Luminaire Tested: SQ2-PW1-025U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855087
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-025U-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

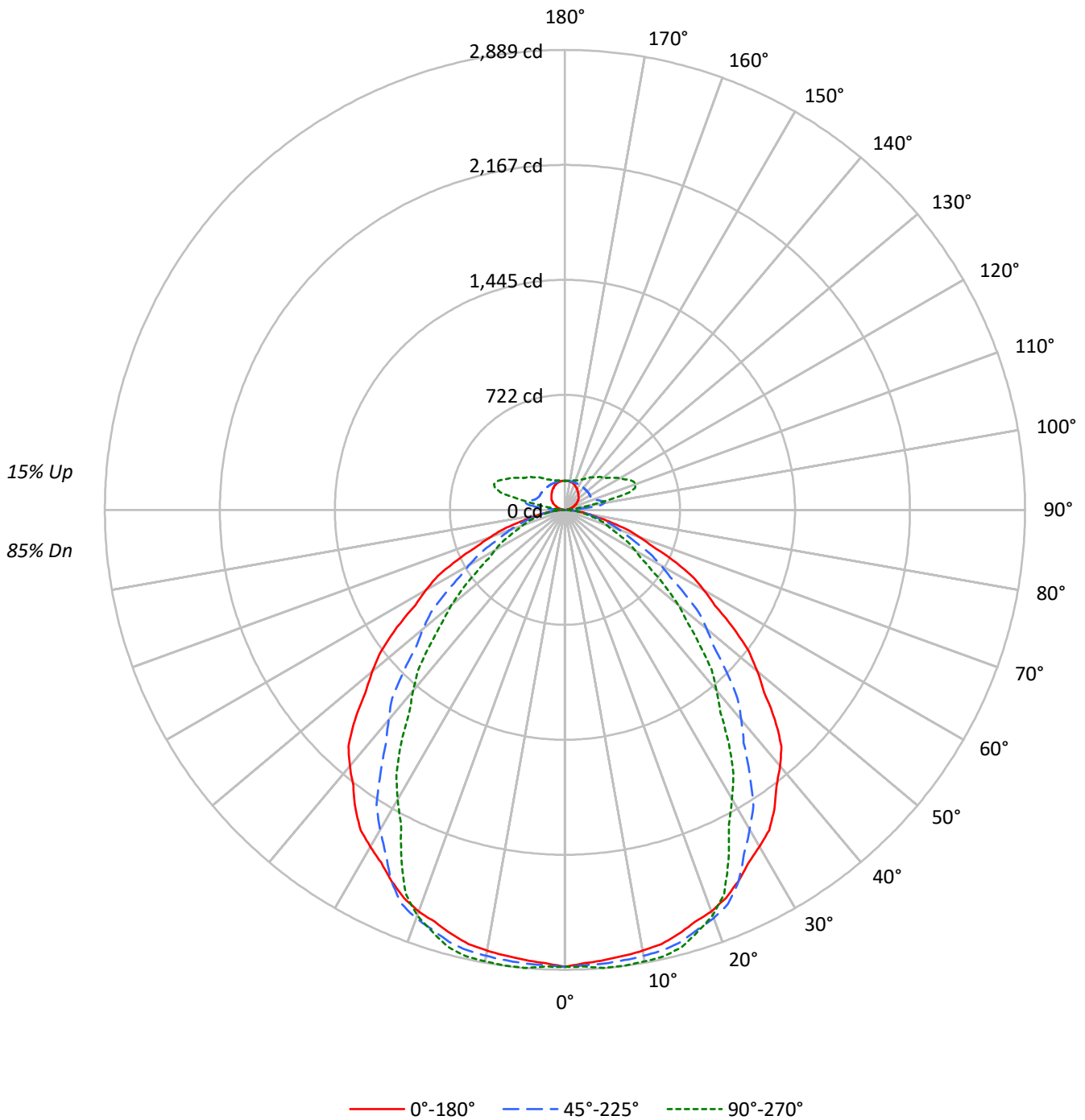
Lumens per Lamp: N/A
Luminaire Lumens: 7504.7 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

TEST NUMBER: P855087

CATALOG NUMBER: SQ2-PW1-025U-125D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855087

CATALOG NUMBER: SQ2-PW1-025U-125D-835-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85																			85									
1	107	102	99	95	102	99	95	92	92	89	87	85	83	81	80	78	76	74																			74									
2	98	91	85	80	94	88	82	77	82	77	73	76	73	70	71	68	66	63																			63									
3	90	81	73	68	86	78	71	66	73	67	63	68	64	60	64	60	57	55																			55									
4	83	72	64	58	80	70	63	57	66	59	55	61	56	52	58	54	50	48																			48									
5	77	65	57	51	74	63	55	50	59	53	48	56	50	46	53	48	44	42																			42									
6	71	59	51	45	68	57	50	44	54	47	42	51	45	41	48	43	39	37																			37									
7	66	54	46	40	63	52	45	39	49	43	38	47	41	37	44	39	35	33																			33									
8	62	49	41	36	59	48	40	35	45	39	34	43	37	33	41	36	32	30																			30									
9	58	45	38	32	56	44	37	32	42	35	31	40	34	30	38	33	29	27																			27									
10	54	42	34	29	52	41	34	29	39	33	28	37	31	27	35	30	27	25																			25									

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46334	46334	46334
5°	46024	46378	46820
10°	46107	46645	47229
15°	46094	46964	47512
20°	46115	46912	46582
25°	45865	45915	43285
30°	45554	43261	39133
35°	45196	39809	35339
40°	44297	36290	31221
45°	42562	32638	27273
50°	39612	29175	23340
55°	36237	25771	18925
60°	32476	22417	16327
65°	28401	19316	14514
70°	23221	17160	13157
75°	18072	14835	12108
80°	13473	12710	10674
85°	9114	9615	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42562 cd/sqm



TEST NUMBER: P855087

CATALOG NUMBER: SQ2-PW1-025U-125D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.2	3.6
10°-20°	791.7	10.5
20°-30°	1165.1	15.5
30°-40°	1273.9	17.0
40°-50°	1142.8	15.2
50°-60°	852.5	11.4
60°-70°	538.7	7.2
70°-80°	266.9	3.6
80°-90°	62.9	0.8
90°-100°	74.1	1.0
100°-110°	230.6	3.1
110°-120°	225.6	3.0
120°-130°	184.2	2.5
130°-140°	150.7	2.0
140°-150°	117.6	1.6
150°-160°	84.9	1.1
160°-170°	51.9	0.7
170°-180°	17.5	0.2
0°-30°	2230.1	29.7
0°-40°	3504.0	46.7
0°-60°	5499.3	73.3
0°-90°	6367.8	84.9
90°-120°	530.3	7.1
90°-150°	982.7	13.1
90°-180°	1137.0	15.2
0°-180°	7504.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2840	2885	2862	2865	2889	270
15°	2758	2811	2810	2829	2842	779
25°	2574	2631	2577	2470	2430	1186
35°	2293	2269	2020	1844	1793	1430
45°	1864	1714	1429	1250	1194	1429
55°	1287	1164	916	718	672	1149
65°	743	682	506	407	380	737
75°	290	311	238	199	194	319
85°	49	63	52	35	33	62
90°	0	1	3	3	3	2
95°	10	30	136	50	33	12
105°	40	57	227	433	414	43
115°	72	85	184	380	445	71
125°	100	111	182	299	351	89
135°	120	133	181	258	290	93
145°	140	151	181	223	243	88
155°	161	166	182	200	207	74
165°	176	178	183	189	191	50
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



TEST NUMBER: P855087

CATALOG NUMBER: SQ2-PW1-025U-125D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2869.7	2869.7	2869.7	2869.7	2869.7
2.5°	2850.0	2886.3	2863.1	2865.5	2871.8
5°	2839.7	2885.1	2861.5	2864.8	2888.8
7.5°	2825.4	2871.4	2853.8	2863.7	2887.2
10°	2812.3	2860.4	2845.1	2859.3	2880.7
12.5°	2794.8	2845.0	2834.1	2850.5	2871.8
15°	2757.6	2811.1	2809.6	2829.0	2842.4
17.5°	2714.4	2767.9	2765.3	2770.3	2776.8
20°	2683.9	2737.3	2730.3	2711.1	2711.1
22.5°	2640.2	2697.9	2680.0	2627.7	2610.6
25°	2574.5	2630.7	2577.3	2469.7	2429.7
27.5°	2498.0	2543.4	2436.2	2283.6	2228.0
30°	2443.4	2478.1	2320.4	2152.4	2099.0
32.5°	2386.5	2399.8	2202.3	2027.7	1970.0
35°	2293.0	2269.0	2019.7	1843.6	1792.9
37.5°	2182.6	2111.0	1844.3	1659.8	1603.8
40°	2101.7	2000.2	1721.8	1537.5	1481.3
42.5°	2012.1	1884.9	1605.9	1421.5	1363.2
45°	1864.0	1714.2	1429.4	1250.5	1194.4
47.5°	1697.3	1548.7	1264.3	1091.0	1042.9
50°	1577.0	1432.7	1161.5	988.1	929.2
52.5°	1454.5	1325.2	1060.9	882.6	802.5
55°	1287.3	1164.4	915.5	717.7	672.3
57.5°	1115.0	1008.8	783.8	604.2	566.9
60°	1005.7	912.2	694.2	543.0	505.6
62.5°	900.8	818.0	606.7	486.3	455.3
65°	743.4	681.9	505.6	406.6	379.9
67.5°	590.4	556.1	420.3	333.6	316.0
70°	491.9	481.3	363.5	292.1	278.7
72.5°	406.7	410.9	308.8	252.9	243.8
75°	289.7	311.1	237.8	199.4	194.1
77.5°	197.4	229.4	176.0	147.5	143.2
80°	144.9	176.9	136.7	114.8	114.8
82.5°	101.2	126.7	97.3	86.3	86.3
85°	49.2	62.6	51.9	35.4	32.8
87.5°	13.1	19.8	9.4	7.2	7.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	42.9	14.1	11.4
95°	10.1	29.9	136.0	50.1	32.6
97.5°	18.4	38.8	225.2	140.2	88.4
100°	24.7	43.5	253.9	237.5	158.4
102.5°	31.0	48.8	248.6	339.3	266.4
105°	40.5	56.9	227.0	433.3	413.6
107.5°	49.9	65.3	206.3	440.6	462.4
110°	56.2	71.5	195.6	430.3	473.1



TEST NUMBER: P855087

CATALOG NUMBER: SQ2-PW1-025U-125D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.5	77.0	190.1	411.7	465.9
115°	72.0	85.1	184.3	380.2	445.1
117.5°	81.1	93.2	181.9	350.1	416.5
120°	86.6	98.7	181.0	332.9	396.8
122.5°	91.9	104.0	181.9	318.5	377.0
125°	100.0	111.0	182.1	299.0	350.6
127.5°	106.5	117.8	182.1	284.4	328.4
130°	110.1	122.2	182.1	276.2	315.8
132.5°	114.6	126.7	181.2	269.0	305.9
135°	120.3	133.4	181.0	258.1	289.9
137.5°	126.7	138.9	181.0	247.3	276.2
140°	130.4	142.5	181.0	240.0	266.4
142.5°	134.9	146.1	181.0	232.8	256.4
145°	140.4	151.4	181.0	222.9	242.7
147.5°	147.2	156.6	182.1	213.9	229.5
150°	151.8	159.5	182.1	209.4	221.4
152.5°	155.3	162.2	182.1	204.8	215.1
155°	160.7	166.2	182.1	200.2	206.8
157.5°	166.1	170.3	182.1	196.1	200.3
160°	169.7	173.0	182.1	193.4	196.7
162.5°	172.4	174.8	182.1	191.6	194.0
165°	176.4	177.6	183.2	188.9	191.0
167.5°	178.9	179.1	182.1	187.3	188.3
170°	179.8	181.0	182.1	185.5	186.6
172.5°	181.6	181.9	183.0	184.6	184.8
175°	183.2	183.2	183.2	184.2	183.2
177.5°	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2



TEST NUMBER: P855087

CATALOG NUMBER: SQ2-PW1-025U-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	23.20	24.41	23.79	25.01	25.68	19.68	20.90	20.28	21.49	22.16
	3H	24.55	25.63	25.15	26.24	26.95	20.91	22.00	21.52	22.61	23.32
	4H	24.94	25.96	25.56	26.58	27.30	21.38	22.40	22.01	23.02	23.74
	6H	25.16	26.10	25.80	26.73	27.46	21.71	22.65	22.35	23.28	24.02
	8H	25.20	26.09	25.85	26.75	27.49	21.80	22.69	22.45	23.34	24.08
	12H	25.21	26.06	25.87	26.71	27.47	21.82	22.67	22.48	23.32	24.09
4H	2H	23.34	24.36	23.97	24.98	25.71	20.41	21.43	21.04	22.05	22.77
	3H	24.92	25.76	25.56	26.42	27.17	21.83	22.67	22.47	23.33	24.07
	4H	25.44	26.20	26.10	26.87	27.64	22.39	23.15	23.05	23.82	24.59
	6H	25.79	26.45	26.47	27.14	27.93	22.81	23.47	23.49	24.16	24.95
	8H	25.88	26.49	26.56	27.18	27.98	22.92	23.54	23.61	24.23	25.02
	12H	25.91	26.46	26.61	27.17	27.97	22.96	23.51	23.67	24.23	25.03
8H	4H	25.50	26.12	26.19	26.81	27.60	22.74	23.36	23.43	24.04	24.84
	6H	25.95	26.46	26.67	27.19	27.99	23.26	23.77	23.97	24.50	25.30
	8H	26.10	26.55	26.83	27.29	28.10	23.42	23.87	24.15	24.61	25.42
	12H	26.18	26.58	26.91	27.30	28.18	23.50	23.90	24.23	24.62	25.50
12H	4H	25.48	26.03	26.19	26.75	27.55	22.77	23.32	23.48	24.04	24.84
	6H	25.94	26.40	26.68	27.14	27.95	23.32	23.78	24.05	24.51	25.33
	8H	26.12	26.52	26.85	27.25	28.12	23.52	23.92	24.25	24.65	25.53