

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: P855294

Luminaire Tested: SQ2-PW1-025U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855294
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-840-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

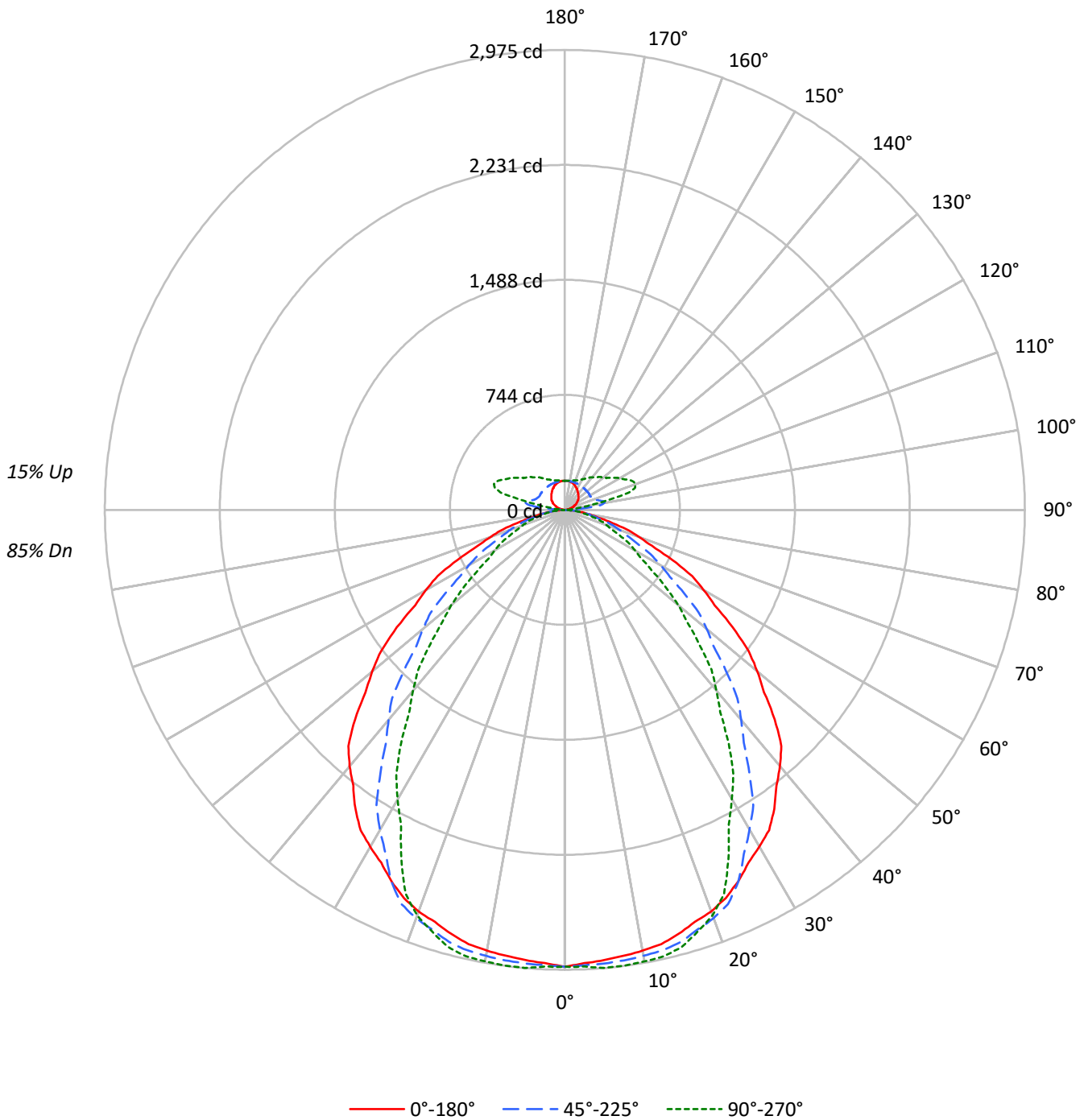
Lumens per Lamp: N/A
Luminaire Lumens: 7728.5 lumens
Efficiency: N/A
Efficacy: 136.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P855294

CATALOG NUMBER: SQ2-PW1-025U-125D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	47714	47714	47714
5°	47396	47760	48216
10°	47481	48035	48636
15°	47468	48363	48928
20°	47489	48309	47972
25°	47233	47283	44575
30°	46911	44549	40300
35°	46542	40996	36391
40°	45619	37374	32153
45°	43829	33611	28085
50°	40792	30047	24036
55°	37315	26539	19491
60°	33444	23085	16814
65°	29249	19893	14946
70°	23915	17670	13548
75°	18609	15278	12470
80°	13873	13092	10990
85°	9392	9911	6262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 43829 cd/sqm



TEST NUMBER: P855294

CATALOG NUMBER: SQ2-PW1-025U-125D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.4	3.6
10°-20°	815.3	10.5
20°-30°	1199.9	15.5
30°-40°	1311.9	17.0
40°-50°	1176.9	15.2
50°-60°	877.9	11.4
60°-70°	554.8	7.2
70°-80°	274.8	3.6
80°-90°	64.8	0.8
90°-100°	76.3	1.0
100°-110°	237.5	3.1
110°-120°	232.3	3.0
120°-130°	189.6	2.5
130°-140°	155.2	2.0
140°-150°	121.1	1.6
150°-160°	87.4	1.1
160°-170°	53.4	0.7
170°-180°	18.0	0.2
0°-30°	2296.6	29.7
0°-40°	3608.5	46.7
0°-60°	5663.2	73.3
0°-90°	6557.6	84.9
90°-120°	546.1	7.1
90°-150°	1012.0	13.1
90°-180°	1171.0	15.2
0°-180°	7728.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2955	2955	2955	2955	2955	
5°	2924	2971	2947	2950	2975	278
15°	2840	2895	2893	2913	2927	802
25°	2651	2709	2654	2543	2502	1221
35°	2361	2337	2080	1899	1846	1473
45°	1920	1765	1472	1288	1230	1472
55°	1326	1199	943	739	692	1184
65°	766	702	521	419	391	759
75°	298	320	245	205	200	329
85°	51	64	54	36	34	64
90°	0	1	4	4	4	2
95°	10	31	140	52	34	12
105°	42	59	234	446	426	44
115°	74	88	190	392	458	73
125°	103	114	188	308	361	91
135°	124	137	186	266	299	96
145°	145	156	186	230	250	91
155°	166	171	188	206	213	76
165°	182	183	189	194	197	51
175°	189	189	189	190	189	18
180°	189	189	189	189	189	



TEST NUMBER: P855294

CATALOG NUMBER: SQ2-PW1-025U-125D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2955.2	2955.2	2955.2	2955.2	2955.2
2.5°	2934.9	2972.4	2948.5	2950.9	2957.4
5°	2924.3	2971.1	2946.8	2950.2	2974.9
7.5°	2909.7	2957.0	2938.9	2949.0	2973.3
10°	2896.1	2945.7	2929.9	2944.5	2966.5
12.5°	2878.1	2929.8	2918.6	2935.5	2957.4
15°	2839.8	2894.9	2893.3	2913.4	2927.1
17.5°	2795.3	2850.5	2847.8	2852.9	2859.5
20°	2763.9	2818.9	2811.6	2792.0	2792.0
22.5°	2718.9	2778.3	2759.9	2706.1	2688.5
25°	2651.3	2709.1	2654.1	2543.4	2502.1
27.5°	2572.5	2619.2	2508.9	2351.7	2294.4
30°	2516.2	2552.0	2389.5	2216.6	2161.6
32.5°	2457.6	2471.3	2268.0	2088.2	2028.7
35°	2361.3	2336.6	2079.9	1898.6	1846.3
37.5°	2247.7	2173.9	1899.3	1709.3	1651.6
40°	2164.4	2059.8	1773.2	1583.3	1525.5
42.5°	2072.1	1941.1	1653.8	1463.9	1403.8
45°	1919.5	1765.3	1472.0	1287.8	1230.0
47.5°	1747.9	1594.9	1302.0	1123.6	1074.0
50°	1624.0	1475.4	1196.2	1017.5	956.9
52.5°	1497.9	1364.7	1092.6	908.9	826.4
55°	1325.6	1199.1	942.8	739.1	692.4
57.5°	1148.3	1038.8	807.2	622.2	583.7
60°	1035.7	939.4	714.9	559.2	520.7
62.5°	927.7	842.4	624.8	500.8	468.8
65°	765.6	702.3	520.7	418.7	391.2
67.5°	608.0	572.7	432.8	343.6	325.4
70°	506.6	495.6	374.3	300.8	287.0
72.5°	418.8	423.2	318.0	260.5	251.0
75°	298.3	320.4	244.9	205.3	199.9
77.5°	203.2	236.2	181.2	151.9	147.4
80°	149.2	182.2	140.8	118.2	118.2
82.5°	104.2	130.5	100.2	88.9	88.9
85°	50.7	64.4	53.5	36.5	33.8
87.5°	13.5	20.4	9.7	7.5	7.5
90°	0.0	1.2	3.5	3.5	3.5
92.5°	3.7	12.9	44.2	14.6	11.8
95°	10.4	30.8	140.1	51.6	33.6
97.5°	19.0	40.0	231.9	144.4	91.0
100°	25.4	44.8	261.5	244.6	163.2
102.5°	31.9	50.2	256.0	349.4	274.3
105°	41.7	58.6	233.8	446.2	426.0
107.5°	51.4	67.2	212.5	453.7	476.2
110°	57.9	73.7	201.4	443.1	487.3



TEST NUMBER: P855294

CATALOG NUMBER: SQ2-PW1-025U-125D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	64.3	79.2	195.8	424.0	479.8
115°	74.1	87.6	189.8	391.6	458.4
117.5°	83.6	96.0	187.3	360.6	428.9
120°	89.2	101.6	186.3	342.9	408.6
122.5°	94.6	107.1	187.3	327.9	388.2
125°	103.0	114.3	187.5	307.9	361.0
127.5°	109.7	121.3	187.5	292.9	338.2
130°	113.4	125.9	187.5	284.5	325.3
132.5°	118.1	130.5	186.6	277.0	315.0
135°	123.9	137.4	186.3	265.8	298.6
137.5°	130.5	143.0	186.3	254.6	284.5
140°	134.3	146.7	186.3	247.2	274.3
142.5°	138.9	150.5	186.3	239.7	264.1
145°	144.6	155.9	186.3	229.6	250.0
147.5°	151.6	161.3	187.5	220.3	236.3
150°	156.3	164.2	187.5	215.6	228.0
152.5°	159.9	167.0	187.5	210.9	221.5
155°	165.5	171.2	187.5	206.2	212.9
157.5°	171.1	175.4	187.5	202.0	206.3
160°	174.8	178.2	187.5	199.2	202.5
162.5°	177.5	180.1	187.5	197.3	199.7
165°	181.7	182.9	188.7	194.5	196.7
167.5°	184.2	184.5	187.5	192.9	193.9
170°	185.2	186.3	187.5	191.0	192.2
172.5°	187.0	187.3	188.4	190.1	190.3
175°	188.7	188.7	188.7	189.7	188.7
177.5°	188.7	188.7	188.7	188.7	188.7
180°	188.7	188.7	188.7	188.7	188.7



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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	23.30	24.51	23.89	25.11	25.78	19.79	21.00	20.38	21.59	22.26
	3H	24.65	25.73	25.26	26.34	27.05	21.02	22.10	21.62	22.71	23.42
	4H	25.04	26.06	25.67	26.68	27.40	21.48	22.50	22.11	23.12	23.84
	6H	25.26	26.20	25.90	26.83	27.57	21.81	22.75	22.46	23.39	24.12
	8H	25.30	26.20	25.95	26.85	27.59	21.90	22.79	22.55	23.45	24.19
	12H	25.31	26.16	25.97	26.81	27.57	21.92	22.78	22.58	23.42	24.19
4H	2H	23.45	24.47	24.08	25.08	25.81	20.51	21.53	21.14	22.15	22.87
	3H	25.02	25.87	25.66	26.53	27.27	21.93	22.77	22.57	23.43	24.18
	4H	25.54	26.31	26.20	26.97	27.74	22.49	23.25	23.15	23.92	24.69
	6H	25.89	26.55	26.58	27.24	28.03	22.91	23.57	23.59	24.26	25.05
	8H	25.98	26.59	26.66	27.28	28.08	23.02	23.64	23.71	24.33	25.12
	12H	26.01	26.56	26.72	27.28	28.08	23.06	23.61	23.77	24.33	25.13
8H	4H	25.61	26.22	26.29	26.91	27.71	22.84	23.46	23.53	24.15	24.94
	6H	26.06	26.56	26.77	27.30	28.09	23.36	23.87	24.08	24.60	25.40
	8H	26.20	26.65	26.93	27.39	28.20	23.52	23.98	24.25	24.71	25.53
	12H	26.28	26.68	27.01	27.41	28.28	23.60	24.00	24.33	24.72	25.60
12H	4H	25.58	26.13	26.29	26.85	27.65	22.87	23.42	23.58	24.14	24.94
	6H	26.05	26.50	26.78	27.24	28.05	23.42	23.88	24.16	24.62	25.43
	8H	26.22	26.62	26.95	27.35	28.23	23.63	24.03	24.36	24.75	25.63