

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: P855318

Luminaire Tested: SQ2-PR1-050U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855318
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-050U-125D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

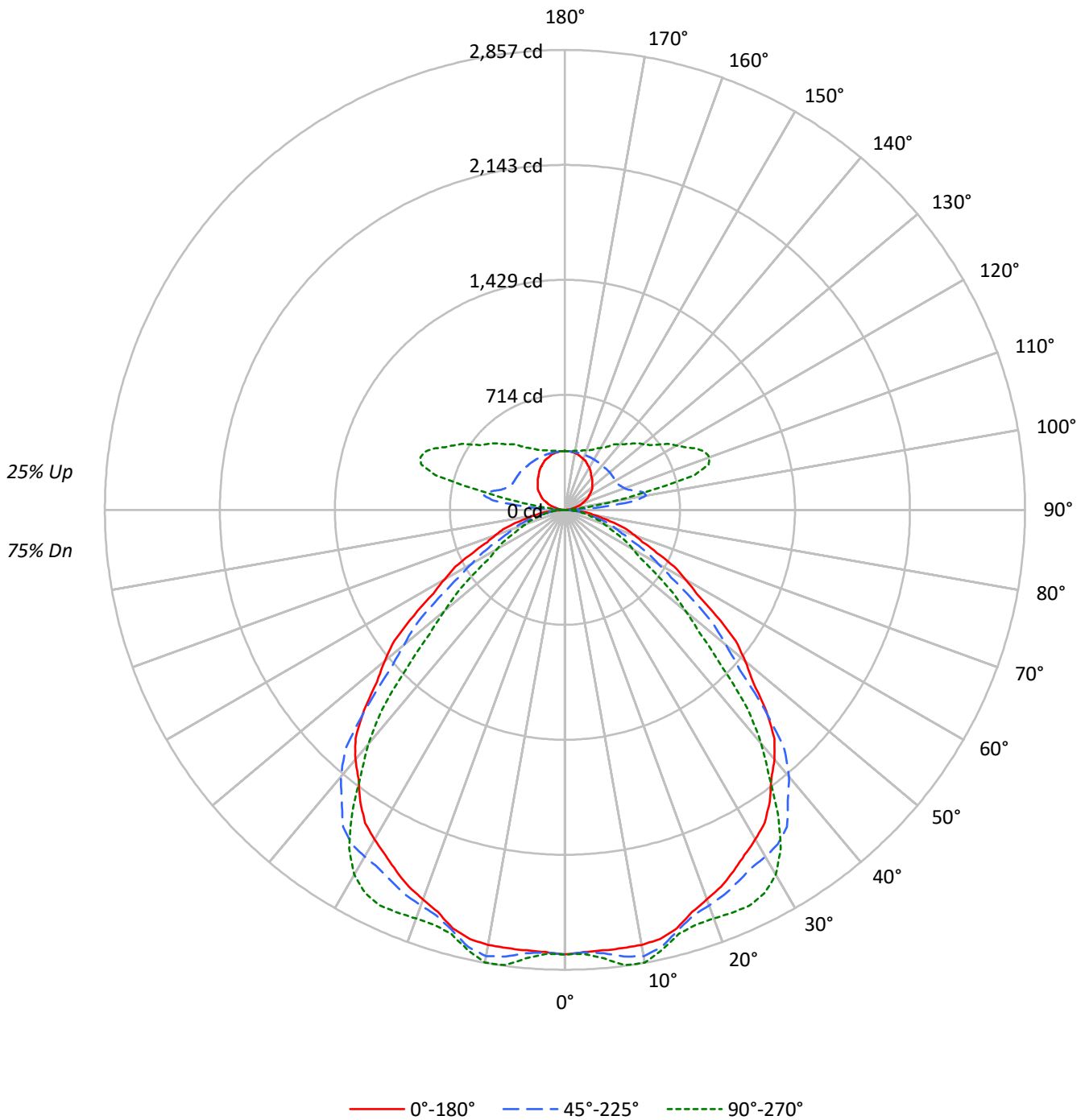
Lumens per Lamp: N/A
Luminaire Lumens: 8915.0 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
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	50	30	10	0	
RCR																						
0	113	113	113	113	107	107	107	107	97	97	97	87	87	87	79	79	79	75				
1	104	100	96	93	99	95	92	89	87	84	82	78	77	75	71	70	68	65				
2	96	89	83	78	91	85	79	75	77	73	69	70	67	64	64	61	59	56				
3	88	79	71	66	83	75	69	64	69	64	59	63	59	55	57	54	51	48				
4	81	70	62	56	77	67	60	55	62	56	51	56	52	48	52	48	45	42				
5	75	63	55	49	71	61	53	48	56	50	45	51	46	42	47	43	40	37				
6	69	57	49	43	66	55	47	42	50	44	40	46	41	37	43	38	35	33				
7	64	52	44	38	61	50	42	37	46	40	35	42	37	33	39	35	31	29				
8	60	47	39	34	57	46	38	33	42	36	32	39	34	30	36	32	28	26				
9	56	43	36	31	53	42	35	30	39	33	29	36	31	27	33	29	26	24				
10	52	40	33	28	50	39	32	27	36	30	26	33	28	25	31	27	23	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44580	44580	44580
5°	44522	44796	45344
10°	44991	46145	46835
15°	44976	45212	45588
20°	44249	44926	46426
25°	44122	45376	48336
30°	44075	46385	48800
35°	43659	47376	45433
40°	42651	45619	39981
45°	40361	40039	31618
50°	36691	32734	24531
55°	32245	26936	19094
60°	27900	21542	15723
65°	24088	17849	13761
70°	21659	15810	12227
75°	19838	13699	11241
80°	17276	10990	10990
85°	12523	9911	5224

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 43626 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.6	3.0
10°-20°	771.8	8.7
20°-30°	1193.1	13.4
30°-40°	1435.1	16.1
40°-50°	1288.5	14.5
50°-60°	863.3	9.7
60°-70°	502.1	5.6
70°-80°	257.9	2.9
80°-90°	64.1	0.7
90°-100°	145.8	1.6
100°-110°	462.3	5.2
110°-120°	453.3	5.1
120°-130°	368.9	4.1
130°-140°	300.8	3.4
140°-150°	234.5	2.6
150°-160°	169.0	1.9
160°-170°	103.2	1.2
170°-180°	34.8	0.4
0°-30°	2231.6	25.0
0°-40°	3666.6	41.1
0°-60°	5818.4	65.3
0°-90°	6642.5	74.5
90°-120°	1061.4	11.9
90°-150°	1965.5	22.0
90°-180°	2272.0	25.5
0°-180°	8915.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2761	2761	2761	2761	2761	
5°	2747	2794	2764	2770	2798	262
15°	2691	2801	2705	2714	2727	756
25°	2477	2576	2547	2642	2713	1142
35°	2215	2234	2404	2357	2305	1381
45°	1768	1911	1754	1478	1385	1352
55°	1146	1190	957	739	678	1029
65°	630	644	467	380	360	638
75°	318	310	220	186	180	337
85°	68	54	54	36	28	84
90°	0	1	4	4	4	3
95°	20	59	265	98	63	23
105°	80	113	456	868	832	85
115°	144	171	368	765	900	142
125°	199	223	362	600	707	177
135°	240	264	360	516	581	186
145°	281	302	360	445	484	176
155°	320	331	361	397	413	148
165°	349	352	362	376	380	98
175°	365	364	365	367	366	35
180°	366	366	366	366	366	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2761.1	2761.1	2761.1	2761.1	2761.1
2.5°	2749.8	2782.7	2752.0	2754.4	2761.1
5°	2747.0	2793.7	2763.9	2770.2	2797.7
7.5°	2746.4	2813.0	2798.7	2815.8	2852.2
10°	2744.2	2824.0	2814.6	2818.2	2856.7
12.5°	2730.7	2823.7	2780.8	2777.3	2798.1
15°	2690.7	2800.7	2704.8	2713.5	2727.3
17.5°	2620.3	2735.3	2643.9	2674.9	2702.0
20°	2575.3	2688.1	2614.7	2655.1	2702.0
22.5°	2534.7	2647.6	2587.7	2644.3	2708.7
25°	2476.7	2575.9	2547.1	2641.6	2713.2
27.5°	2416.0	2474.3	2508.3	2635.0	2685.1
30°	2364.1	2402.7	2488.0	2598.3	2617.5
32.5°	2307.8	2331.0	2461.0	2518.4	2493.6
35°	2215.0	2234.3	2403.6	2357.4	2305.0
37.5°	2104.7	2144.3	2274.6	2141.7	2081.6
40°	2023.6	2089.7	2164.4	1965.8	1896.9
42.5°	1924.5	2030.2	2018.0	1765.0	1680.9
45°	1767.6	1910.6	1753.5	1478.3	1384.7
47.5°	1582.3	1729.2	1472.0	1226.2	1138.7
50°	1460.7	1579.1	1303.2	1073.0	976.6
52.5°	1336.9	1422.3	1159.0	929.1	841.5
55°	1145.5	1189.5	956.9	738.9	678.3
57.5°	969.8	997.9	781.9	596.8	552.2
60°	864.0	883.4	667.1	522.7	486.9
62.5°	767.2	782.1	574.8	459.9	432.8
65°	630.5	644.2	467.2	379.6	360.2
67.5°	521.9	529.0	384.5	315.4	297.2
70°	458.8	461.5	334.9	272.7	259.0
72.5°	402.5	398.6	287.6	236.8	227.4
75°	318.0	309.8	219.6	185.6	180.2
77.5°	237.5	228.8	154.2	143.0	143.0
80°	185.8	174.7	118.2	118.2	118.2
82.5°	138.4	123.1	91.1	91.1	88.9
85°	67.6	53.8	53.5	36.4	28.2
87.5°	18.1	18.2	7.5	7.5	7.5
90°	0.0	1.2	3.5	3.5	3.5
92.5°	6.4	25.5	81.7	27.2	19.1
95°	19.6	59.0	264.7	98.1	63.3
97.5°	36.4	76.5	448.3	280.2	171.9
100°	48.4	86.6	510.9	465.8	302.7
102.5°	61.2	97.7	499.8	684.1	523.6
105°	80.5	113.2	455.7	868.0	832.0
107.5°	99.9	130.1	413.6	887.2	935.8
110°	112.8	142.1	392.4	865.1	955.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	125.6	153.1	380.4	827.0	941.3
115°	143.8	170.8	368.3	764.9	899.9
117.5°	161.5	187.2	363.4	705.1	841.2
120°	172.6	197.4	362.4	668.1	799.8
122.5°	183.7	207.6	362.4	638.4	761.1
125°	199.1	222.7	362.4	599.7	706.6
127.5°	212.7	235.4	362.4	569.6	660.8
130°	221.0	244.6	362.4	551.9	634.1
132.5°	229.2	252.9	361.6	537.9	612.0
135°	240.5	264.1	360.2	515.9	581.2
137.5°	251.6	276.3	360.0	494.7	553.1
140°	259.0	283.7	359.1	479.9	532.8
142.5°	268.2	291.9	360.0	465.1	514.4
145°	280.7	302.2	360.2	445.1	484.5
147.5°	293.4	311.6	360.5	427.5	459.6
150°	302.7	317.2	361.4	417.2	443.1
152.5°	310.0	322.8	361.4	408.8	430.1
155°	319.9	331.2	361.4	397.4	413.1
157.5°	330.5	338.2	362.4	390.4	401.1
160°	336.0	342.7	362.4	385.7	394.7
162.5°	341.6	346.5	362.4	382.0	388.3
165°	348.7	352.1	362.4	376.4	379.8
167.5°	355.3	356.3	363.6	372.5	375.4
170°	359.1	359.1	363.6	370.6	371.6
172.5°	360.9	361.7	363.6	368.7	369.0
175°	364.8	363.7	364.8	367.1	365.9
177.5°	365.9	365.0	365.0	366.9	365.0
180°	365.9	365.9	365.9	365.9	365.9



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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	22.02	23.09	22.74	23.82	24.70	18.74	19.81	19.47	20.55	21.42
	3H	23.27	24.22	24.01	24.97	25.87	19.83	20.78	20.56	21.52	22.43
	4H	23.73	24.62	24.49	25.38	26.30	20.24	21.13	20.99	21.89	22.81
	6H	24.06	24.88	24.83	25.65	26.58	20.58	21.40	21.35	22.17	23.10
	8H	24.15	24.93	24.92	25.71	26.65	20.67	21.45	21.45	22.24	23.17
	12H	24.18	24.93	24.97	25.70	26.67	20.68	21.43	21.47	22.21	23.17
4H	2H	22.12	23.02	22.88	23.77	24.69	19.34	20.23	20.10	20.99	21.91
	3H	23.61	24.35	24.39	25.15	26.08	20.62	21.36	21.40	22.16	23.09
	4H	24.22	24.89	25.00	25.68	26.65	21.14	21.81	21.92	22.60	23.57
	6H	24.68	25.26	25.48	26.07	27.05	21.58	22.16	22.39	22.98	23.95
	8H	24.82	25.36	25.62	26.17	27.15	21.71	22.25	22.52	23.06	24.05
	12H	24.88	25.36	25.71	26.20	27.19	21.74	22.22	22.57	23.06	24.05
8H	4H	24.26	24.80	25.07	25.61	26.59	21.46	22.00	22.27	22.81	23.80
	6H	24.81	25.26	25.65	26.11	27.10	22.00	22.45	22.84	23.30	24.29
	8H	25.01	25.41	25.86	26.26	27.26	22.19	22.58	23.03	23.43	24.44
	12H	25.12	25.47	25.97	26.32	27.38	22.26	22.61	23.10	23.45	24.51
12H	4H	24.22	24.71	25.05	25.54	26.53	21.48	21.97	22.31	22.80	23.79
	6H	24.80	25.20	25.65	26.05	27.05	22.06	22.46	22.91	23.31	24.31
	8H	25.02	25.37	25.87	26.21	27.27	22.28	22.63	23.12	23.47	24.53