

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: P854872

Luminaire Tested: SQ2-PW1-075U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854872
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-075U-125D-830-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

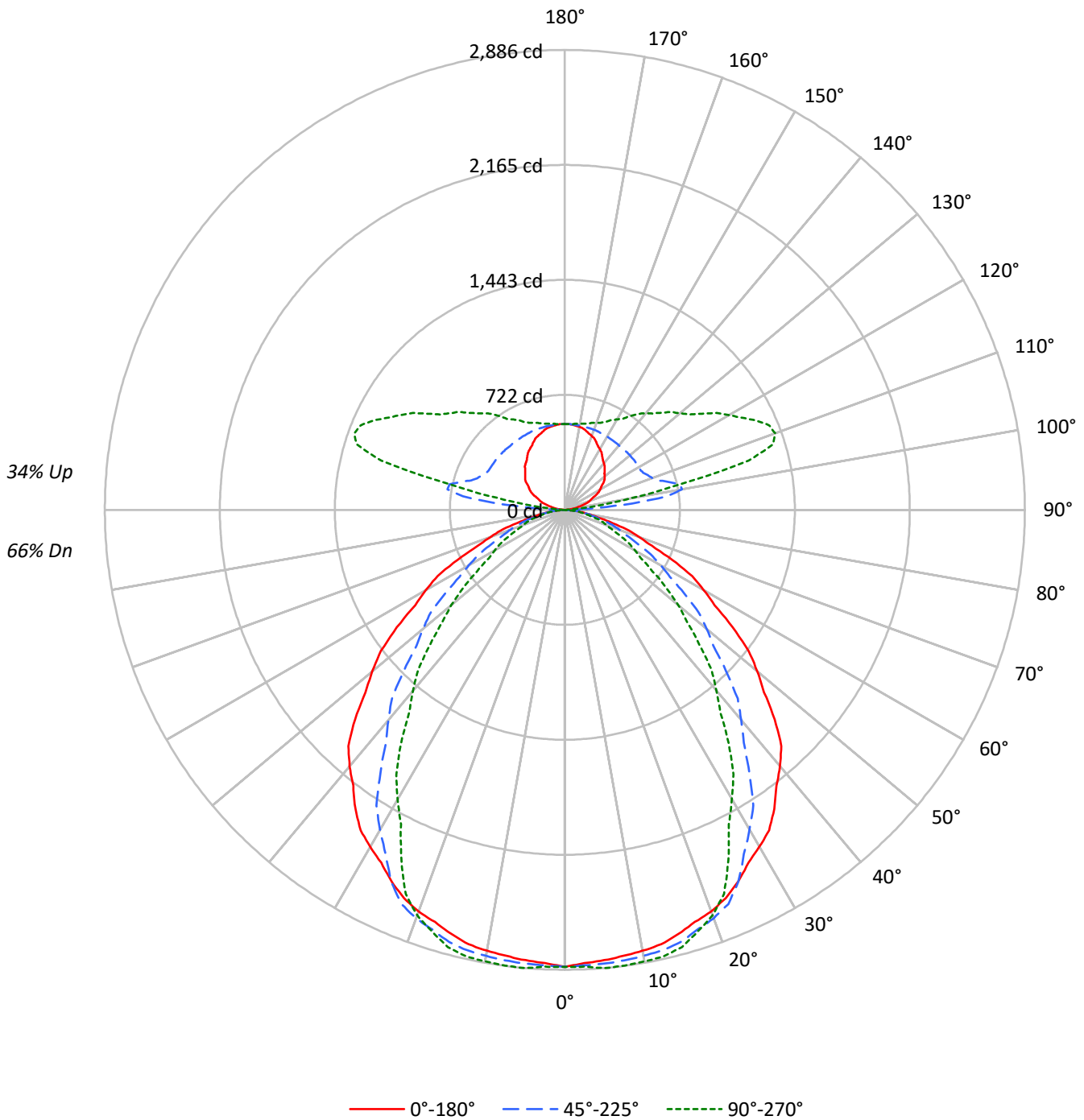
Lumens per Lamp: N/A
Luminaire Lumens: 9700.7 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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: P854872

CATALOG NUMBER: SQ2-PW1-075U-125D-830-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	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66				
1	102	98	94	91	96	92	89	86	82	80	77	72	71	69	63	62	61	57				
2	94	86	80	76	88	82	76	72	73	69	65	64	61	59	57	55	53	49				
3	86	77	70	64	81	73	66	61	65	60	56	58	54	51	51	48	46	42				
4	79	68	61	55	74	65	58	53	58	53	48	52	48	44	46	43	40	37				
5	73	61	53	47	68	58	51	46	52	47	42	47	42	39	42	38	35	32				
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	28	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	32	27	48	37	30	26	34	28	24	31	26	23	28	24	21	19				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46292	46292	46292
5°	45982	46336	46778
10°	46066	46603	47186
15°	46054	46920	47468
20°	46072	46869	46541
25°	45824	45872	43246
30°	45513	43221	39098
35°	45155	39774	35307
40°	44257	36259	31194
45°	42523	32609	27247
50°	39577	29150	23320
55°	36203	25748	18908
60°	32447	22394	16314
65°	28374	19301	14502
70°	23202	17146	13147
75°	18054	14816	12096
80°	13454	12701	10656
85°	9114	9615	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42523 cd/sqm



TEST NUMBER: P854872

CATALOG NUMBER: SQ2-PW1-075U-125D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.0	2.8
10°-20°	791.0	8.2
20°-30°	1164.1	12.0
30°-40°	1272.7	13.1
40°-50°	1141.8	11.8
50°-60°	851.7	8.8
60°-70°	538.2	5.5
70°-80°	266.6	2.7
80°-90°	62.9	0.6
90°-100°	203.9	2.1
100°-110°	676.0	7.0
110°-120°	670.9	6.9
120°-130°	546.5	5.6
130°-140°	444.1	4.6
140°-150°	344.9	3.6
150°-160°	248.5	2.6
160°-170°	152.2	1.6
170°-180°	51.4	0.5
0°-30°	2228.1	23.0
0°-40°	3500.9	36.1
0°-60°	5494.3	56.6
0°-90°	6362.1	65.6
90°-120°	1550.9	16.0
90°-150°	2886.4	29.8
90°-180°	3339.0	34.4
0°-180°	9700.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2867	2867	2867	2867	2867	
5°	2837	2882	2859	2862	2886	270
15°	2755	2808	2807	2826	2840	778
25°	2572	2628	2575	2468	2428	1185
35°	2291	2267	2018	1842	1791	1429
45°	1862	1713	1428	1249	1193	1428
55°	1286	1163	915	717	672	1148
65°	743	681	505	406	380	736
75°	289	311	238	199	194	319
85°	49	62	52	35	33	62
90°	0	1	3	4	4	3
95°	29	86	370	132	88	33
105°	118	169	677	1276	1193	125
115°	211	252	545	1134	1326	209
125°	295	327	535	891	1050	262
135°	353	389	530	765	863	273
145°	410	440	529	658	720	257
155°	468	484	532	588	610	216
165°	514	519	535	556	562	145
175°	537	537	538	542	540	51
180°	539	539	539	539	539	



TEST NUMBER: P854872

CATALOG NUMBER: SQ2-PW1-075U-125D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2867.1	2867.1	2867.1	2867.1	2867.1
2.5°	2847.4	2883.7	2860.5	2862.9	2869.2
5°	2837.1	2882.5	2858.9	2862.2	2886.2
7.5°	2822.9	2868.8	2851.3	2861.1	2884.6
10°	2809.8	2857.8	2842.5	2856.7	2878.1
12.5°	2792.2	2842.4	2831.6	2848.0	2869.2
15°	2755.2	2808.5	2807.0	2826.5	2839.8
17.5°	2712.0	2765.4	2762.8	2767.8	2774.3
20°	2681.4	2734.8	2727.8	2708.7	2708.7
22.5°	2637.8	2695.5	2677.6	2625.4	2608.3
25°	2572.2	2628.3	2574.9	2467.5	2427.5
27.5°	2495.8	2541.1	2434.0	2281.5	2226.0
30°	2441.2	2475.9	2318.3	2150.5	2097.1
32.5°	2384.3	2397.6	2200.3	2025.9	1968.2
35°	2290.9	2266.9	2017.9	1841.9	1791.3
37.5°	2180.7	2109.1	1842.6	1658.3	1602.3
40°	2099.8	1998.4	1720.3	1536.1	1480.0
42.5°	2010.3	1883.2	1604.5	1420.2	1362.0
45°	1862.3	1712.7	1428.1	1249.4	1193.3
47.5°	1695.7	1547.3	1263.2	1090.1	1042.0
50°	1575.6	1431.4	1160.5	987.2	928.4
52.5°	1453.2	1324.0	1060.0	881.8	801.7
55°	1286.1	1163.3	914.7	717.1	671.7
57.5°	1114.0	1007.9	783.1	603.7	566.3
60°	1004.8	911.4	693.5	542.5	505.2
62.5°	900.0	817.2	606.1	485.8	454.9
65°	742.7	681.3	505.2	406.2	379.6
67.5°	589.9	555.6	419.9	333.3	315.7
70°	491.5	480.9	363.2	291.8	278.5
72.5°	406.4	410.5	308.6	252.7	243.5
75°	289.4	310.8	237.5	199.2	193.9
77.5°	197.2	229.2	175.8	147.3	143.0
80°	144.7	176.7	136.6	114.6	114.6
82.5°	101.1	126.6	97.2	86.3	86.3
85°	49.2	62.5	51.9	35.4	32.8
87.5°	13.1	19.8	9.4	7.5	7.5
90°	0.0	1.1	3.4	4.4	4.4
92.5°	8.9	34.5	101.6	32.9	27.7
95°	29.1	85.8	369.5	131.8	88.2
97.5°	53.4	112.7	645.0	376.2	237.8
100°	70.3	127.1	746.9	641.5	425.3
102.5°	89.1	144.2	740.6	980.4	740.6
105°	118.4	168.6	676.6	1276.4	1193.4
107.5°	148.2	193.0	615.2	1306.5	1369.5
110°	165.2	210.0	583.9	1276.7	1404.4



TEST NUMBER: P854872

CATALOG NUMBER: SQ2-PW1-075U-125D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	183.1	226.9	565.1	1223.9	1386.6
115°	211.0	252.5	544.9	1134.1	1326.2
117.5°	238.7	275.5	537.4	1048.4	1249.9
120°	255.6	291.7	534.8	994.7	1190.1
122.5°	270.8	306.0	534.8	950.5	1131.1
125°	294.8	327.4	534.8	891.2	1050.5
127.5°	314.4	346.4	533.4	846.2	982.4
130°	326.0	359.9	532.5	819.9	942.3
132.5°	336.7	371.4	531.6	798.2	908.2
135°	352.8	388.8	530.3	764.8	863.0
137.5°	370.2	404.9	528.9	732.3	819.0
140°	381.8	415.6	528.0	710.7	790.4
142.5°	392.6	425.5	528.9	689.1	760.0
145°	409.7	440.3	529.1	657.8	720.1
147.5°	428.3	453.8	529.4	631.4	677.7
150°	439.8	462.8	530.3	616.0	655.3
152.5°	450.6	472.6	531.2	603.3	634.7
155°	467.7	484.1	532.5	587.7	609.5
157.5°	484.5	497.1	533.9	576.6	592.1
160°	493.4	504.4	534.8	568.5	580.5
162.5°	502.3	510.7	534.8	563.1	572.4
165°	513.5	519.0	534.8	556.1	561.6
167.5°	523.8	526.7	535.9	549.8	552.7
170°	529.1	530.3	535.9	547.0	548.1
172.5°	532.8	533.9	536.7	544.4	544.6
175°	536.9	536.9	538.1	541.5	540.3
177.5°	539.2	539.2	538.3	540.1	538.3
180°	539.2	539.2	539.2	539.2	539.2



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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	21.72	22.69	22.54	23.53	24.56	18.21	19.18	19.03	20.01	21.05
	3H	23.06	23.92	23.89	24.76	25.83	19.42	20.29	20.26	21.13	22.20
	4H	23.43	24.25	24.28	25.10	26.17	19.88	20.69	20.73	21.54	22.62
	6H	23.64	24.39	24.50	25.25	26.34	20.20	20.95	21.06	21.81	22.89
	8H	23.68	24.39	24.55	25.27	26.35	20.28	20.99	21.15	21.87	22.95
	12H	23.68	24.36	24.55	25.23	26.34	20.29	20.97	21.17	21.84	22.95
4H	2H	21.84	22.66	22.70	23.51	24.58	18.91	19.72	19.76	20.57	21.65
	3H	23.40	24.07	24.26	24.96	26.04	20.30	20.98	21.17	21.87	22.95
	4H	23.91	24.52	24.79	25.40	26.52	20.86	21.47	21.73	22.35	23.47
	6H	24.25	24.77	25.14	25.68	26.80	21.26	21.79	22.16	22.70	23.82
	8H	24.33	24.82	25.22	25.72	26.85	21.37	21.86	22.27	22.77	23.90
	12H	24.35	24.79	25.26	25.71	26.85	21.40	21.84	22.31	22.76	23.90
8H	4H	23.96	24.45	24.85	25.35	26.48	21.19	21.68	22.08	22.58	23.71
	6H	24.40	24.80	25.32	25.74	26.88	21.70	22.10	22.62	23.05	24.18
	8H	24.54	24.90	25.47	25.84	26.98	21.86	22.22	22.79	23.16	24.31
	12H	24.61	24.93	25.55	25.86	27.06	21.93	22.24	22.86	23.17	24.37
12H	4H	23.92	24.36	24.83	25.28	26.42	21.21	21.65	22.12	22.57	23.71
	6H	24.39	24.75	25.32	25.68	26.83	21.76	22.12	22.70	23.06	24.21
	8H	24.55	24.87	25.49	25.80	27.00	21.95	22.27	22.89	23.20	24.40