

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: P854279

Luminaire Tested: SQ2-PW1-075U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854279
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-940-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

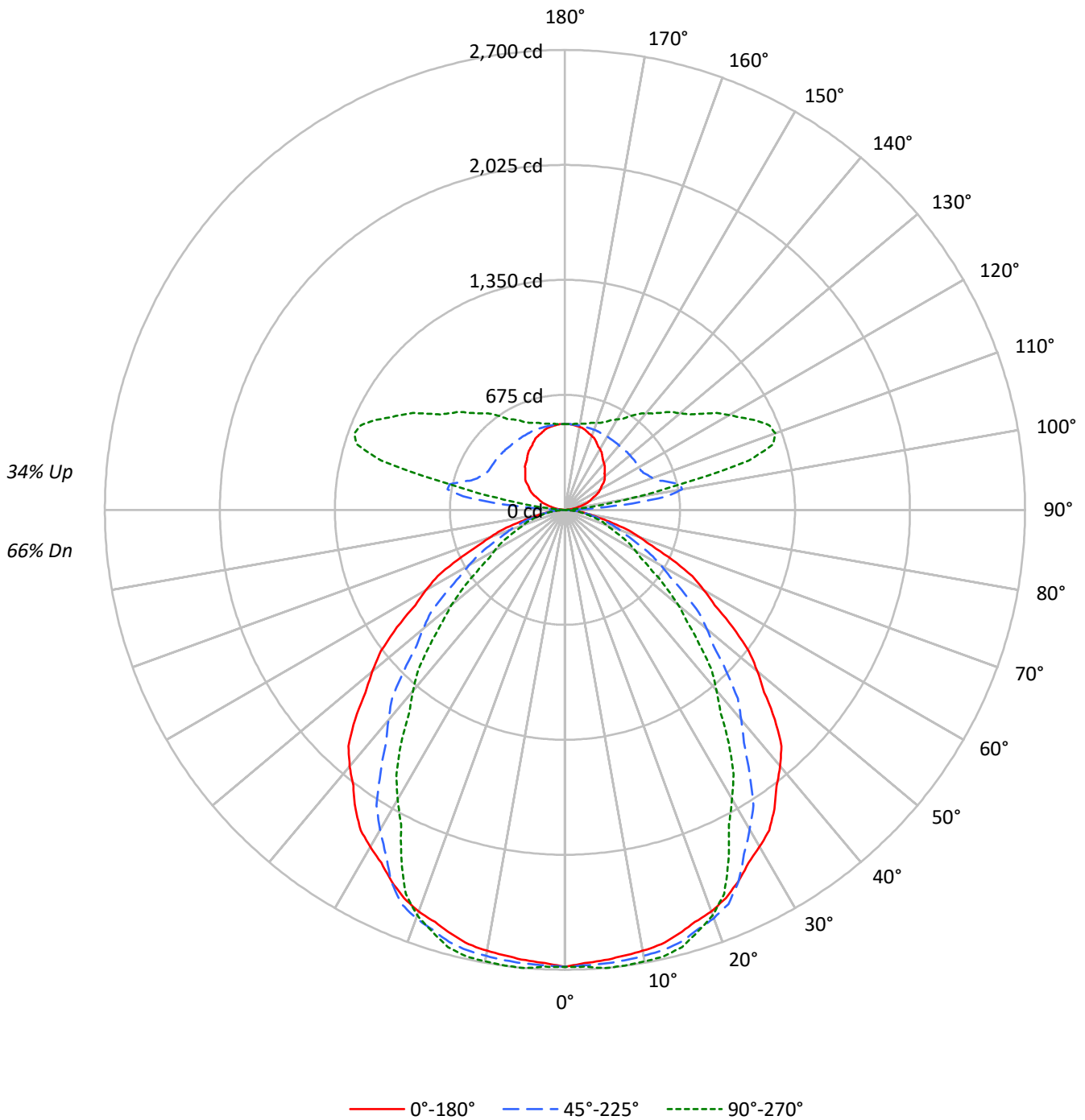
Lumens per Lamp: N/A
Luminaire Lumens: 9075.5 lumens
Efficiency: N/A
Efficacy: 125.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

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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	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°	43308	43308	43308
5°	43018	43349	43764
10°	43097	43599	44143
15°	43086	43896	44409
20°	43103	43849	43541
25°	42870	42916	40458
30°	42578	40434	36577
35°	42245	37209	33031
40°	41406	33921	29183
45°	39781	30506	25489
50°	37025	27271	21818
55°	33869	24090	17689
60°	30357	20954	15261
65°	26544	18055	13566
70°	21706	16041	12302
75°	16893	13861	11316
80°	12590	11874	9977
85°	8522	8985	5687

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39781 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.4	2.8
10°-20°	740.0	8.2
20°-30°	1089.1	12.0
30°-40°	1190.7	13.1
40°-50°	1068.2	11.8
50°-60°	796.8	8.8
60°-70°	503.6	5.5
70°-80°	249.5	2.7
80°-90°	58.9	0.6
90°-100°	190.8	2.1
100°-110°	632.4	7.0
110°-120°	627.7	6.9
120°-130°	511.3	5.6
130°-140°	415.5	4.6
140°-150°	322.7	3.6
150°-160°	232.5	2.6
160°-170°	142.4	1.6
170°-180°	48.1	0.5
0°-30°	2084.5	23.0
0°-40°	3275.2	36.1
0°-60°	5140.2	56.6
0°-90°	5952.1	65.6
90°-120°	1450.9	16.0
90°-150°	2700.4	29.8
90°-180°	3123.0	34.4
0°-180°	9075.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2682	2682	2682	2682	2682	
5°	2654	2697	2675	2678	2700	253
15°	2578	2628	2626	2644	2657	728
25°	2406	2459	2409	2308	2271	1108
35°	2143	2121	1888	1723	1676	1337
45°	1742	1602	1336	1169	1116	1336
55°	1203	1088	856	671	628	1074
65°	695	637	473	380	355	689
75°	271	291	222	186	181	298
85°	46	58	48	33	31	58
90°	0	1	3	4	4	3
95°	27	80	346	123	82	31
105°	111	158	633	1194	1116	117
115°	197	236	510	1061	1241	195
125°	276	306	500	834	983	245
135°	330	364	496	715	807	255
145°	383	412	495	616	674	240
155°	438	453	498	550	570	202
165°	480	486	500	520	525	135
175°	502	502	503	506	506	48
180°	504	504	504	504	504	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2682.3	2682.3	2682.3	2682.3	2682.3
2.5°	2663.9	2697.9	2676.2	2678.4	2684.3
5°	2654.2	2696.7	2674.6	2677.7	2700.2
7.5°	2640.9	2683.9	2667.5	2676.7	2698.7
10°	2628.7	2673.6	2659.3	2672.5	2692.5
12.5°	2612.3	2659.3	2649.1	2664.4	2684.3
15°	2577.6	2627.5	2626.1	2644.3	2656.8
17.5°	2537.2	2587.2	2584.7	2589.5	2595.4
20°	2508.6	2558.5	2552.0	2534.1	2534.1
22.5°	2467.7	2521.7	2505.0	2456.1	2440.1
25°	2406.4	2458.9	2409.0	2308.5	2271.0
27.5°	2334.9	2377.3	2277.1	2134.4	2082.5
30°	2283.8	2316.3	2168.8	2011.9	1961.9
32.5°	2230.7	2243.1	2058.5	1895.3	1841.3
35°	2143.3	2120.8	1887.8	1723.3	1675.8
37.5°	2040.1	1973.1	1723.8	1551.5	1499.0
40°	1964.5	1869.6	1609.4	1437.0	1384.6
42.5°	1880.7	1761.8	1501.1	1328.7	1274.2
45°	1742.2	1602.3	1336.0	1168.8	1116.3
47.5°	1586.4	1447.5	1181.7	1019.8	974.8
50°	1474.0	1339.1	1085.7	923.5	868.6
52.5°	1359.5	1238.7	991.7	825.0	750.0
55°	1203.2	1088.3	855.8	670.9	628.4
57.5°	1042.3	942.9	732.7	564.8	529.8
60°	940.1	852.7	648.9	507.6	472.6
62.5°	842.0	764.6	567.1	454.6	425.6
65°	694.8	637.4	472.6	380.1	355.1
67.5°	551.8	519.8	392.9	311.8	295.3
70°	459.8	449.8	339.8	273.1	260.6
72.5°	380.1	384.1	288.7	236.4	227.9
75°	270.8	290.8	222.2	186.4	181.4
77.5°	184.4	214.4	164.5	137.9	133.9
80°	135.4	165.4	127.7	107.3	107.3
82.5°	94.5	118.5	90.9	80.7	80.7
85°	46.0	58.5	48.5	33.2	30.7
87.5°	12.3	18.5	8.8	7.0	7.0
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.3	95.0	30.8	25.9
95°	27.2	80.3	345.7	123.4	82.5
97.5°	49.9	105.5	603.5	352.0	222.5
100°	65.8	118.9	698.7	600.1	397.9
102.5°	83.3	134.8	692.9	917.1	692.9
105°	110.7	157.7	632.9	1194.1	1116.5
107.5°	138.7	180.6	575.5	1222.3	1281.3
110°	154.6	196.4	546.2	1194.4	1313.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.3	212.3	528.7	1145.0	1297.2
115°	197.4	236.2	509.7	1061.1	1240.8
117.5°	223.3	257.8	502.8	980.8	1169.4
120°	239.2	272.9	500.3	930.6	1113.4
122.5°	253.4	286.3	500.3	889.3	1058.2
125°	275.7	306.4	500.3	833.7	982.8
127.5°	294.1	324.1	499.0	791.7	919.1
130°	305.0	336.6	498.2	767.1	881.5
132.5°	315.0	347.5	497.4	746.8	849.8
135°	330.0	363.7	496.1	715.4	807.4
137.5°	346.3	378.8	494.9	685.1	766.2
140°	357.2	388.9	494.0	664.9	739.5
142.5°	367.2	398.1	494.9	644.7	711.1
145°	383.3	411.9	495.1	615.5	673.7
147.5°	400.6	424.5	495.3	590.7	634.0
150°	411.5	433.0	496.1	576.3	613.1
152.5°	421.5	442.2	496.9	564.5	593.9
155°	437.6	452.9	498.2	549.8	570.3
157.5°	453.3	465.1	499.5	539.5	554.0
160°	461.6	471.9	500.3	531.9	543.1
162.5°	470.0	477.8	500.3	526.8	535.6
165°	480.4	485.5	500.3	520.2	525.4
167.5°	490.1	492.7	501.3	514.3	517.0
170°	495.1	496.1	501.3	511.8	512.8
172.5°	498.4	499.4	502.2	509.3	509.5
175°	502.4	502.4	503.4	506.5	505.5
177.5°	504.5	504.5	503.6	505.3	503.6
180°	504.5	504.5	504.5	504.5	504.5



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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	21.49	22.46	22.31	23.30	24.33	17.98	18.95	18.80	19.78	20.82
	3H	22.82	23.69	23.66	24.53	25.60	19.19	20.06	20.03	20.90	21.96
	4H	23.20	24.02	24.05	24.87	25.94	19.65	20.46	20.50	21.31	22.39
	6H	23.41	24.16	24.27	25.02	26.11	19.97	20.72	20.83	21.58	22.66
	8H	23.45	24.16	24.32	25.04	26.12	20.05	20.76	20.92	21.64	22.72
	12H	23.45	24.13	24.32	25.00	26.11	20.06	20.74	20.94	21.61	22.72
4H	2H	21.61	22.42	22.46	23.28	24.35	18.68	19.49	19.53	20.34	21.42
	3H	23.17	23.84	24.03	24.73	25.81	20.07	20.75	20.94	21.63	22.72
	4H	23.68	24.29	24.55	25.17	26.29	20.62	21.24	21.50	22.12	23.23
	6H	24.02	24.54	24.91	25.45	26.57	21.03	21.56	21.93	22.47	23.59
	8H	24.10	24.59	24.99	25.49	26.62	21.14	21.63	22.04	22.54	23.67
	12H	24.12	24.56	25.03	25.48	26.61	21.17	21.61	22.08	22.53	23.67
8H	4H	23.72	24.22	24.62	25.12	26.25	20.96	21.45	21.85	22.35	23.48
	6H	24.16	24.57	25.09	25.51	26.64	21.47	21.87	22.39	22.82	23.95
	8H	24.31	24.67	25.24	25.60	26.75	21.63	21.99	22.56	22.93	24.07
	12H	24.38	24.70	25.31	25.62	26.82	21.70	22.01	22.63	22.94	24.14
12H	4H	23.69	24.13	24.60	25.05	26.19	20.98	21.42	21.89	22.34	23.48
	6H	24.15	24.52	25.09	25.45	26.60	21.53	21.89	22.47	22.83	23.98
	8H	24.32	24.64	25.26	25.57	26.77	21.72	22.04	22.66	22.97	24.17