

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: P855374

Luminaire Tested: SQ2-PH1-050U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855374
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-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

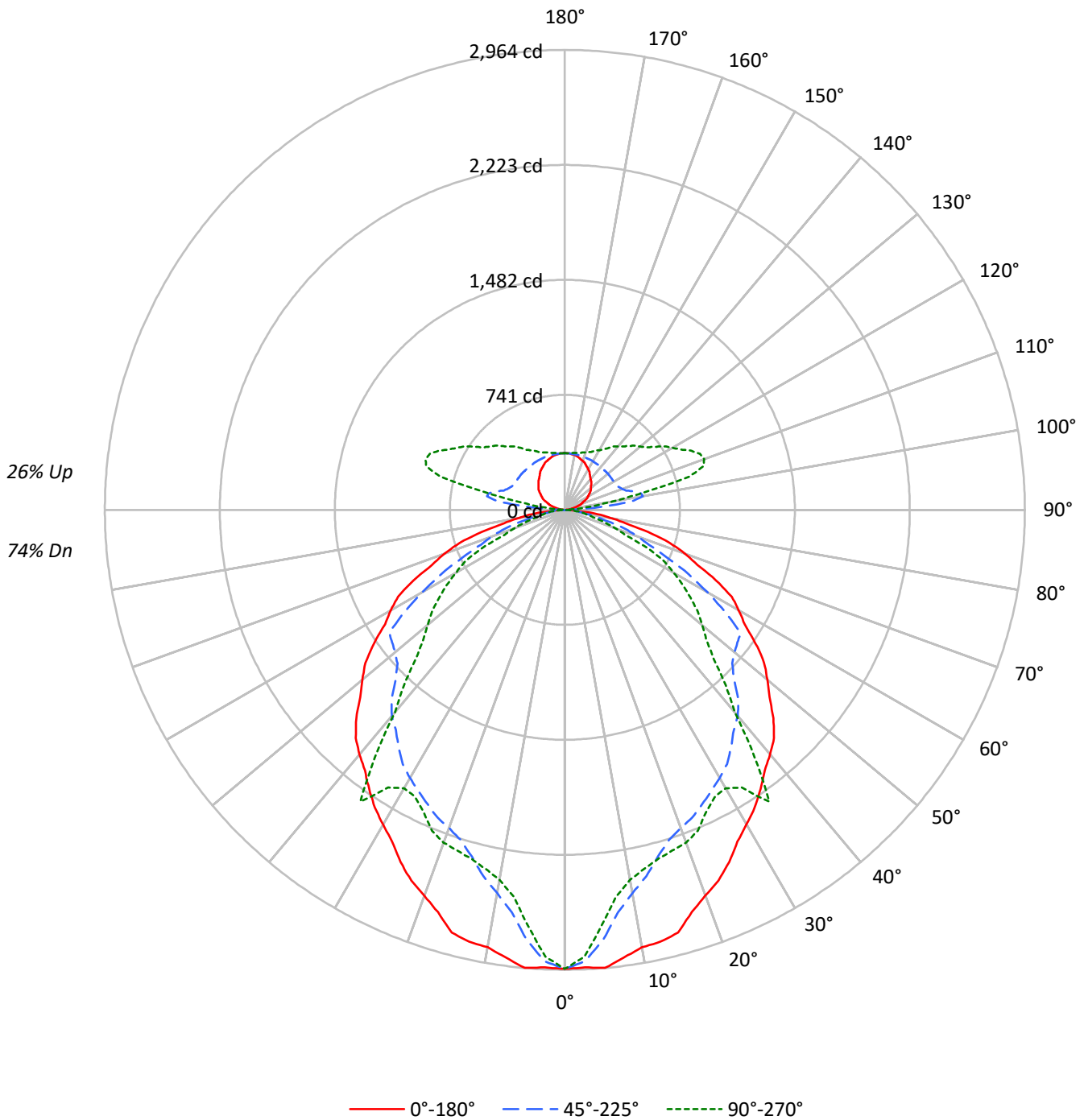
Lumens per Lamp: N/A
Luminaire Lumens: 8815.9 lumens
Efficiency: N/A
Efficacy: 137.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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				
RC	80					70					50					30				
RW	70	50	30	10	70	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	78	78	78	74		
1	104	99	95	92	98	94	91	88	86	83	80	77	75	74	70	68	67	63		
2	95	87	81	75	90	83	77	73	75	71	67	68	65	62	62	59	57	53		
3	86	77	69	63	82	73	66	61	67	61	57	61	56	52	55	51	48	45		
4	79	68	60	54	75	65	58	52	59	53	48	54	49	45	49	45	42	39		
5	73	61	52	46	69	58	51	45	53	47	42	49	43	39	44	40	37	34		
6	67	55	46	40	64	52	45	39	48	42	37	44	39	35	40	36	32	30		
7	62	50	41	36	59	48	40	35	44	37	33	40	35	31	37	32	29	26		
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	34	29	26	24		
9	54	41	34	28	51	40	33	28	37	31	26	34	29	25	31	27	23	21		
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	25	21	19		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	47759	47759	47759
5°	48034	45161	43655
10°	46927	41114	39682
15°	47141	38673	38908
20°	45459	37479	39220
25°	44625	37305	38308
30°	43656	37203	38620
35°	43327	36780	45269
40°	43364	36543	35890
45°	43379	35152	30910
50°	42772	35842	28987
55°	42227	38900	27809
60°	41805	34081	26082
65°	41077	27637	22690
70°	38795	23519	16206
75°	34591	17729	12296
80°	28257	11520	11520
85°	17729	10430	7818

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 43379 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.3	3.0
10°-20°	684.6	7.8
20°-30°	1003.9	11.4
30°-40°	1215.7	13.8
40°-50°	1195.5	13.6
50°-60°	1040.7	11.8
60°-70°	723.5	8.2
70°-80°	343.0	3.9
80°-90°	76.1	0.9
90°-100°	145.8	1.7
100°-110°	462.3	5.2
110°-120°	453.3	5.1
120°-130°	368.9	4.2
130°-140°	300.8	3.4
140°-150°	234.5	2.7
150°-160°	169.0	1.9
160°-170°	103.2	1.2
170°-180°	34.8	0.4
0°-30°	1948.8	22.1
0°-40°	3164.5	35.9
0°-60°	5400.7	61.3
0°-90°	6543.4	74.2
90°-120°	1061.4	12.0
90°-150°	1965.5	22.3
90°-180°	2272.0	25.8
0°-180°	8815.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2958	2958	2958	2958	2958	
5°	2964	2961	2786	2699	2694	279
15°	2820	2512	2314	2297	2328	786
25°	2505	2131	2094	2159	2150	1152
35°	2198	1777	1866	2027	2297	1377
45°	1900	1407	1540	1593	1354	1460
55°	1500	1096	1382	996	988	1340
65°	1075	753	723	594	594	1056
75°	554	384	284	202	197	588
85°	96	63	56	45	42	128
90°	0	1	4	4	4	4
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°	2958.0	2958.0	2958.0	2958.0	2958.0
2.5°	2951.3	2982.1	2913.0	2885.9	2881.5
5°	2963.7	2960.9	2786.4	2699.0	2693.5
7.5°	2909.7	2824.3	2615.9	2519.5	2515.1
10°	2862.3	2733.0	2507.7	2420.4	2420.4
12.5°	2851.2	2646.9	2420.0	2355.5	2368.7
15°	2820.2	2511.9	2313.6	2297.4	2327.7
17.5°	2717.7	2385.8	2230.8	2267.6	2302.8
20°	2645.7	2318.1	2181.3	2249.6	2282.6
22.5°	2584.9	2253.0	2145.3	2220.0	2237.6
25°	2504.9	2130.7	2094.0	2158.6	2150.3
27.5°	2409.2	2018.5	2042.7	2082.3	2087.2
30°	2341.6	1950.9	1995.5	2035.7	2071.5
32.5°	2276.4	1872.3	1943.7	2039.0	2121.0
35°	2198.2	1777.1	1866.0	2027.0	2296.7
37.5°	2115.9	1664.7	1787.7	1923.1	2009.0
40°	2057.4	1584.0	1733.8	1900.9	1702.8
42.5°	1994.4	1521.0	1652.7	1868.5	1533.9
45°	1899.8	1407.2	1539.5	1593.2	1353.7
47.5°	1788.3	1318.9	1462.9	1328.6	1235.0
50°	1702.8	1259.7	1426.9	1214.5	1154.0
52.5°	1619.4	1198.4	1402.2	1120.4	1079.6
55°	1500.1	1095.6	1381.9	996.2	987.9
57.5°	1373.4	990.9	1222.0	888.0	902.4
60°	1294.6	923.1	1055.4	824.3	807.7
62.5°	1211.3	857.5	900.0	743.2	726.7
65°	1075.2	753.2	723.4	593.9	593.9
67.5°	925.4	644.7	586.0	486.0	419.9
70°	821.8	574.2	498.2	387.4	343.3
72.5°	711.5	499.0	408.1	317.5	266.8
75°	554.5	383.9	284.2	202.5	197.1
77.5°	400.8	276.4	191.4	150.3	150.8
80°	303.9	210.4	123.9	121.1	123.9
82.5°	213.9	144.5	92.3	96.3	96.8
85°	95.7	62.7	56.3	45.0	42.2
87.5°	20.3	18.3	12.0	12.0	12.0
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	22.75	23.87	23.47	24.61	25.49	21.43	22.55	22.15	23.28	24.16
	3H	24.80	25.80	25.53	26.55	27.46	22.48	23.48	23.21	24.23	25.14
	4H	25.54	26.49	26.29	27.25	28.17	22.71	23.65	23.46	24.41	25.33
	6H	26.04	26.91	26.81	27.68	28.62	22.86	23.74	23.63	24.50	25.44
	8H	26.17	27.00	26.95	27.79	28.73	22.90	23.73	23.68	24.52	25.46
	12H	26.23	27.02	27.01	27.80	28.76	22.91	23.70	23.69	24.48	25.45
4H	2H	23.16	24.11	23.92	24.86	25.79	22.10	23.05	22.86	23.80	24.73
	3H	25.29	26.08	26.06	26.87	27.81	23.30	24.09	24.07	24.88	25.82
	4H	26.12	26.83	26.90	27.62	28.59	23.59	24.30	24.37	25.10	26.07
	6H	26.72	27.33	27.52	28.15	29.13	23.81	24.43	24.61	25.25	26.22
	8H	26.89	27.47	27.70	28.28	29.27	23.88	24.45	24.68	25.27	26.25
	12H	26.97	27.49	27.80	28.33	29.32	23.90	24.41	24.72	25.25	26.24
8H	4H	26.16	26.73	26.96	27.54	28.53	23.83	24.40	24.63	25.22	26.20
	6H	26.82	27.29	27.65	28.15	29.14	24.11	24.58	24.94	25.44	26.43
	8H	27.05	27.47	27.89	28.32	29.33	24.21	24.64	25.06	25.49	26.50
	12H	27.17	27.54	28.02	28.39	29.45	24.27	24.64	25.12	25.49	26.55
12H	4H	26.12	26.64	26.94	27.47	28.47	23.84	24.35	24.66	25.19	26.18
	6H	26.79	27.22	27.64	28.07	29.07	24.14	24.56	24.99	25.42	26.42
	8H	27.04	27.41	27.88	28.25	29.32	24.27	24.64	25.12	25.49	26.55