

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: P854181

Luminaire Tested: SQ2-PR1-050U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854181
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-930-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

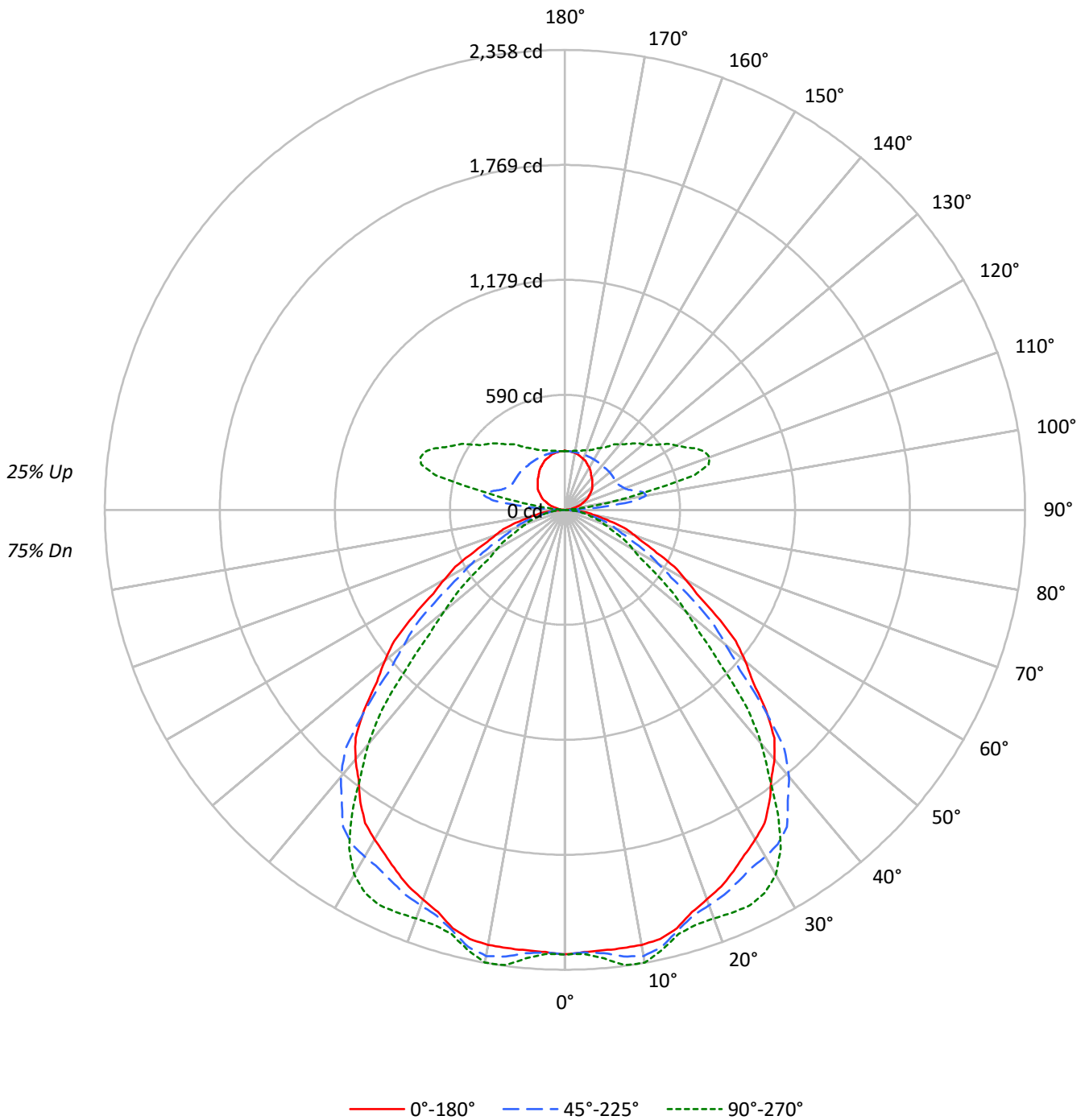
Lumens per Lamp: N/A
Luminaire Lumens: 7357.5 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	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°	36792	36792	36792
5°	36742	36969	37422
10°	37130	38082	38653
15°	37118	37312	37623
20°	36519	37077	38314
25°	36416	37449	39891
30°	36376	38283	40274
35°	36031	39100	37497
40°	35201	37648	32998
45°	33307	33043	26094
50°	30280	27015	20245
55°	26612	22232	15758
60°	23027	17777	12975
65°	19878	14732	11358
70°	17873	13048	10088
75°	16375	11304	9276
80°	14254	9075	9075
85°	10319	8170	4298

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 36004 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.1	3.0
10°-20°	637.0	8.7
20°-30°	984.7	13.4
30°-40°	1184.3	16.1
40°-50°	1063.4	14.5
50°-60°	712.4	9.7
60°-70°	414.4	5.6
70°-80°	212.8	2.9
80°-90°	52.9	0.7
90°-100°	120.3	1.6
100°-110°	381.5	5.2
110°-120°	374.1	5.1
120°-130°	304.4	4.1
130°-140°	248.2	3.4
140°-150°	193.5	2.6
150°-160°	139.4	1.9
160°-170°	85.2	1.2
170°-180°	28.8	0.4
0°-30°	1841.7	25.0
0°-40°	3026.0	41.1
0°-60°	4801.9	65.3
0°-90°	5482.0	74.5
90°-120°	875.9	11.9
90°-150°	1622.1	22.0
90°-180°	1875.0	25.5
0°-180°	7357.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2279	2279	2279	2279	2279	
5°	2267	2306	2281	2286	2309	216
15°	2221	2311	2232	2239	2251	624
25°	2044	2126	2102	2180	2239	943
35°	1828	1844	1984	1946	1902	1140
45°	1459	1577	1447	1220	1143	1116
55°	945	982	790	610	560	850
65°	520	532	386	313	297	526
75°	262	256	181	153	149	279
85°	56	44	44	30	23	69
90°	0	1	3	3	3	3
95°	16	49	218	81	52	19
105°	66	93	376	716	687	70
115°	119	141	304	631	743	117
125°	164	184	299	495	583	146
135°	198	218	297	426	480	153
145°	232	249	297	367	400	145
155°	264	273	298	328	341	122
165°	288	290	299	311	313	81
175°	301	300	301	303	302	29
180°	302	302	302	302	302	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2278.7	2278.7	2278.7	2278.7	2278.7
2.5°	2269.4	2296.6	2271.2	2273.2	2278.7
5°	2267.0	2305.7	2281.0	2286.1	2308.9
7.5°	2266.6	2321.5	2309.8	2323.9	2353.9
10°	2264.7	2330.6	2322.8	2325.8	2357.6
12.5°	2253.6	2330.3	2294.9	2292.1	2309.3
15°	2220.6	2311.4	2232.2	2239.4	2250.8
17.5°	2162.5	2257.5	2182.0	2207.6	2229.9
20°	2125.4	2218.5	2157.9	2191.3	2229.9
22.5°	2091.9	2185.0	2135.6	2182.3	2235.5
25°	2044.1	2125.8	2102.1	2180.1	2239.2
27.5°	1993.9	2042.0	2070.1	2174.6	2215.9
30°	1951.1	1982.9	2053.4	2144.3	2160.2
32.5°	1904.7	1923.8	2031.1	2078.4	2058.0
35°	1828.0	1843.9	1983.7	1945.5	1902.4
37.5°	1737.0	1769.7	1877.3	1767.5	1717.9
40°	1670.1	1724.6	1786.2	1622.3	1565.6
42.5°	1588.3	1675.5	1665.4	1456.7	1387.2
45°	1458.7	1576.8	1447.1	1220.0	1142.8
47.5°	1305.9	1427.2	1214.8	1012.0	939.8
50°	1205.5	1303.2	1075.5	885.5	806.0
52.5°	1103.3	1173.7	956.5	766.7	694.5
55°	945.4	981.7	789.8	609.8	559.8
57.5°	800.4	823.6	645.3	492.5	455.7
60°	713.1	729.0	550.5	431.4	401.8
62.5°	633.2	645.5	474.3	379.5	357.2
65°	520.3	531.7	385.6	313.2	297.3
67.5°	430.6	436.6	317.3	260.3	245.3
70°	378.6	380.9	276.4	225.1	213.7
72.5°	332.2	329.0	237.4	195.4	187.7
75°	262.5	255.7	181.2	153.2	148.7
77.5°	196.0	188.8	127.3	118.0	118.0
80°	153.3	144.2	97.6	97.6	97.6
82.5°	114.3	101.6	75.3	75.2	73.4
85°	55.7	44.4	44.1	30.0	23.2
87.5°	14.9	15.1	6.1	6.1	6.1
90°	0.0	0.9	2.8	2.8	2.8
92.5°	5.3	21.1	67.4	22.5	15.8
95°	16.1	48.6	218.4	81.0	52.2
97.5°	30.0	63.1	370.0	231.2	141.9
100°	39.9	71.5	421.7	384.4	249.8
102.5°	50.5	80.6	412.6	564.5	432.1
105°	66.5	93.4	376.1	716.4	686.6
107.5°	82.4	107.3	341.3	732.2	772.3
110°	93.1	117.2	323.9	714.0	788.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	103.7	126.4	314.0	682.5	776.9
115°	118.7	141.0	303.9	631.2	742.7
117.5°	133.3	154.5	299.9	581.9	694.2
120°	142.5	162.9	299.2	551.4	660.0
122.5°	151.6	171.3	299.2	526.9	628.1
125°	164.3	183.8	299.2	494.9	583.1
127.5°	175.5	194.3	299.2	470.1	545.3
130°	182.3	201.8	299.2	455.5	523.3
132.5°	189.2	208.7	298.4	444.0	505.1
135°	198.5	218.0	297.3	425.7	479.6
137.5°	207.6	228.0	297.1	408.3	456.4
140°	213.7	234.1	296.3	396.1	439.7
142.5°	221.3	241.0	297.1	383.8	424.5
145°	231.7	249.4	297.3	367.3	399.8
147.5°	242.2	257.2	297.4	352.8	379.3
150°	249.8	261.8	298.2	344.3	365.6
152.5°	255.9	266.4	298.2	337.4	355.0
155°	264.0	273.3	298.2	327.9	340.9
157.5°	272.8	279.1	299.2	322.2	331.1
160°	277.3	282.9	299.2	318.3	325.8
162.5°	281.9	286.0	299.2	315.2	320.4
165°	287.8	290.5	299.2	310.6	313.4
167.5°	293.3	294.0	300.1	307.4	309.8
170°	296.3	296.3	300.1	305.8	306.8
172.5°	297.8	298.6	300.1	304.3	304.5
175°	301.1	300.1	301.1	302.9	302.0
177.5°	302.0	301.3	301.2	302.7	301.2
180°	302.0	302.0	302.0	302.0	302.0



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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	21.35	22.42	22.08	23.15	24.03	18.08	19.14	18.80	19.88	20.75
	3H	22.60	23.55	23.34	24.30	25.21	19.16	20.11	19.90	20.86	21.77
	4H	23.06	23.96	23.82	24.71	25.64	19.57	20.46	20.33	21.22	22.14
	6H	23.39	24.21	24.16	24.98	25.91	19.91	20.73	20.68	21.50	22.43
	8H	23.48	24.26	24.26	25.05	25.98	20.00	20.78	20.78	21.57	22.50
	12H	23.51	24.26	24.30	25.04	26.00	20.02	20.76	20.80	21.54	22.50
4H	2H	21.46	22.35	22.22	23.11	24.03	18.67	19.57	19.43	20.32	21.24
	3H	22.95	23.69	23.72	24.48	25.42	19.96	20.70	20.73	21.49	22.43
	4H	23.55	24.22	24.34	25.01	25.98	20.47	21.14	21.26	21.93	22.90
	6H	24.01	24.59	24.82	25.41	26.38	20.92	21.50	21.72	22.31	23.29
	8H	24.15	24.69	24.96	25.50	26.49	21.04	21.58	21.85	22.40	23.38
	12H	24.21	24.70	25.04	25.53	26.52	21.07	21.56	21.90	22.39	23.38
8H	4H	23.59	24.13	24.40	24.94	25.93	20.79	21.33	21.60	22.14	23.13
	6H	24.15	24.59	24.98	25.45	26.43	21.33	21.78	22.17	22.63	23.62
	8H	24.34	24.74	25.19	25.59	26.60	21.52	21.92	22.37	22.77	23.77
	12H	24.46	24.81	25.30	25.65	26.71	21.59	21.94	22.44	22.78	23.84
12H	4H	23.56	24.04	24.38	24.88	25.87	20.82	21.30	21.64	22.14	23.13
	6H	24.13	24.53	24.98	25.38	26.38	21.39	21.79	22.24	22.64	23.65
	8H	24.35	24.70	25.20	25.54	26.60	21.61	21.96	22.46	22.80	23.86