

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: P854241

Luminaire Tested: SQ2-PR1-150U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854241
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-150U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

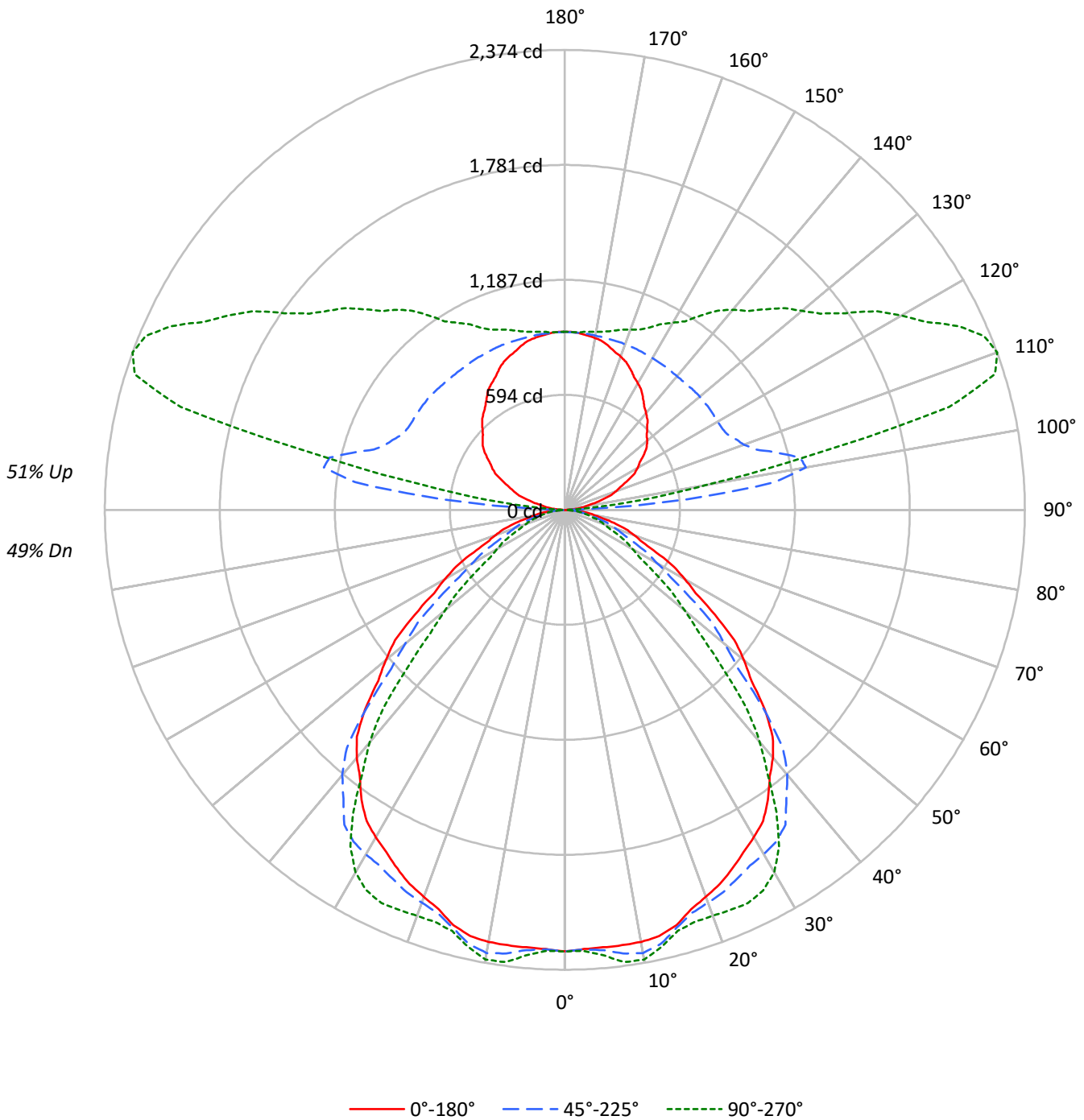
Lumens per Lamp: N/A
Luminaire Lumens: 11152.2 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.8
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	94	91	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43
2	90	83	77	72	83	77	72	67	65	62	58	55	52	50	45	43	41	37
3	82	73	66	61	76	68	62	57	58	53	50	49	45	43	40	38	36	32
4	76	65	58	52	70	61	54	49	52	47	43	44	40	37	36	33	31	28
5	70	58	51	45	64	54	47	42	47	41	37	39	35	32	33	30	28	24
6	64	53	45	39	59	49	42	37	42	37	33	36	32	29	30	27	24	22
7	59	47	40	34	55	44	37	33	38	33	29	33	28	25	27	24	22	19
8	55	43	36	30	51	40	34	29	35	30	26	30	26	23	25	22	20	17
9	51	39	32	27	47	37	30	26	32	27	23	28	23	20	23	20	18	16
10	48	36	29	24	44	34	28	23	30	24	21	25	21	19	22	18	16	14

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	2.0
10°-20°	637.0	5.7
20°-30°	984.7	8.8
30°-40°	1184.3	10.6
40°-50°	1063.4	9.5
50°-60°	712.4	6.4
60°-70°	414.4	3.7
70°-80°	212.8	1.9
80°-90°	53.5	0.5
90°-100°	350.0	3.1
100°-110°	1146.0	10.3
110°-120°	1133.0	10.2
120°-130°	926.2	8.3
130°-140°	755.8	6.8
140°-150°	588.2	5.3
150°-160°	423.5	3.8
160°-170°	259.1	2.3
170°-180°	87.5	0.8
0°-30°	1841.7	16.5
0°-40°	3026.0	27.1
0°-60°	4801.9	43.1
0°-90°	5482.6	49.2
90°-120°	2629.1	23.6
90°-150°	4899.3	43.9
90°-180°	5670.0	50.8
0°-180°	11152.2	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°	1	3	8	7	8	5
95°	49	142	636	227	147	56
105°	199	284	1138	2161	2053	210
115°	359	429	924	1910	2242	354
125°	499	557	911	1506	1769	444
135°	601	665	904	1299	1464	465
145°	703	755	902	1117	1224	441
155°	802	828	907	1000	1038	369
165°	875	883	911	946	956	247
175°	915	915	916	922	920	87
180°	919	919	919	919	919	



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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°	15.1	15.4	7.1	6.9	7.1
90°	0.9	2.8	7.6	6.6	7.6
92.5°	16.0	58.5	179.7	58.5	46.8
95°	49.1	142.3	636.3	226.7	147.3
97.5°	89.1	187.7	1091.7	660.4	409.3
100°	117.1	211.2	1263.1	1128.0	747.7
102.5°	148.8	240.7	1244.3	1662.1	1288.4
105°	199.2	284.1	1137.6	2161.3	2053.3
107.5°	248.9	326.8	1033.5	2208.0	2326.7
110°	281.3	357.0	983.7	2153.7	2374.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	312.3	385.8	953.5	2059.2	2341.8
115°	358.7	428.9	924.2	1909.8	2242.1
117.5°	403.9	469.4	913.1	1763.0	2100.5
120°	433.3	495.2	910.1	1677.5	2006.1
122.5°	459.8	520.1	910.1	1603.7	1908.7
125°	499.4	556.6	911.0	1506.1	1769.2
127.5°	533.0	591.4	909.9	1434.1	1663.0
130°	554.2	613.2	909.1	1390.6	1597.3
132.5°	573.0	633.6	906.9	1353.1	1540.7
135°	601.4	665.1	903.5	1299.0	1464.2
137.5°	631.2	694.3	901.4	1242.6	1391.9
140°	652.3	713.3	900.6	1206.9	1348.1
142.5°	673.5	730.7	900.6	1168.8	1296.8
145°	703.3	755.0	901.6	1117.4	1224.4
147.5°	734.7	777.7	902.9	1072.6	1153.4
150°	754.3	792.1	904.4	1046.6	1114.9
152.5°	773.9	807.3	905.2	1025.2	1081.7
155°	801.5	828.3	907.2	999.7	1038.5
157.5°	826.2	845.6	909.3	979.6	1007.7
160°	842.1	857.8	910.1	968.2	990.3
162.5°	855.7	868.4	910.1	959.0	975.2
165°	875.1	883.4	911.0	946.2	956.3
167.5°	891.6	895.6	912.1	936.2	941.8
170°	900.6	902.5	912.9	930.9	932.7
172.5°	907.4	908.5	915.2	927.1	927.4
175°	914.8	914.8	915.7	922.3	920.5
177.5°	918.6	917.8	917.1	921.5	918.6
180°	918.6	918.6	918.6	918.6	918.6



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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	19.23	20.04	20.20	21.02	22.31	15.95	16.77	16.92	17.75	19.03
	3H	20.46	21.18	21.44	22.17	23.48	17.01	17.74	18.00	18.73	20.04
	4H	20.91	21.59	21.90	22.59	23.90	17.41	18.10	18.41	19.09	20.41
	6H	21.22	21.85	22.23	22.85	24.18	17.74	18.37	18.75	19.37	20.70
	8H	21.30	21.90	22.32	22.92	24.24	17.83	18.43	18.84	19.44	20.77
	12H	21.33	21.90	22.35	22.91	24.26	17.83	18.40	18.85	19.41	20.76
4H	2H	19.30	19.99	20.30	20.98	22.30	16.51	17.20	17.52	18.20	19.51
	3H	20.77	21.34	21.78	22.36	23.69	17.78	18.35	18.79	19.37	20.70
	4H	21.36	21.88	22.38	22.90	24.25	18.28	18.80	19.30	19.82	21.17
	6H	21.81	22.26	22.84	23.30	24.65	18.72	19.16	19.75	20.20	21.55
	8H	21.94	22.36	22.97	23.39	24.76	18.84	19.25	19.87	20.29	21.65
	12H	21.99	22.37	23.04	23.42	24.79	18.86	19.23	19.91	20.28	21.65
8H	4H	21.38	21.80	22.42	22.83	24.20	18.58	19.00	19.62	20.03	21.40
	6H	21.93	22.27	22.99	23.35	24.71	19.12	19.46	20.17	20.54	21.90
	8H	22.13	22.43	23.19	23.49	24.87	19.30	19.61	20.37	20.66	22.05
	12H	22.23	22.50	23.30	23.55	24.97	19.36	19.63	20.43	20.68	22.11
12H	4H	21.34	21.72	22.39	22.76	24.13	18.60	18.97	19.65	20.02	21.39
	6H	21.92	22.22	22.98	23.28	24.66	19.18	19.48	20.24	20.54	21.92
	8H	22.13	22.39	23.19	23.45	24.87	19.38	19.65	20.45	20.70	22.13