

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: P854325

Luminaire Tested: SQ2-PW1-150U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854325
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-150U-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

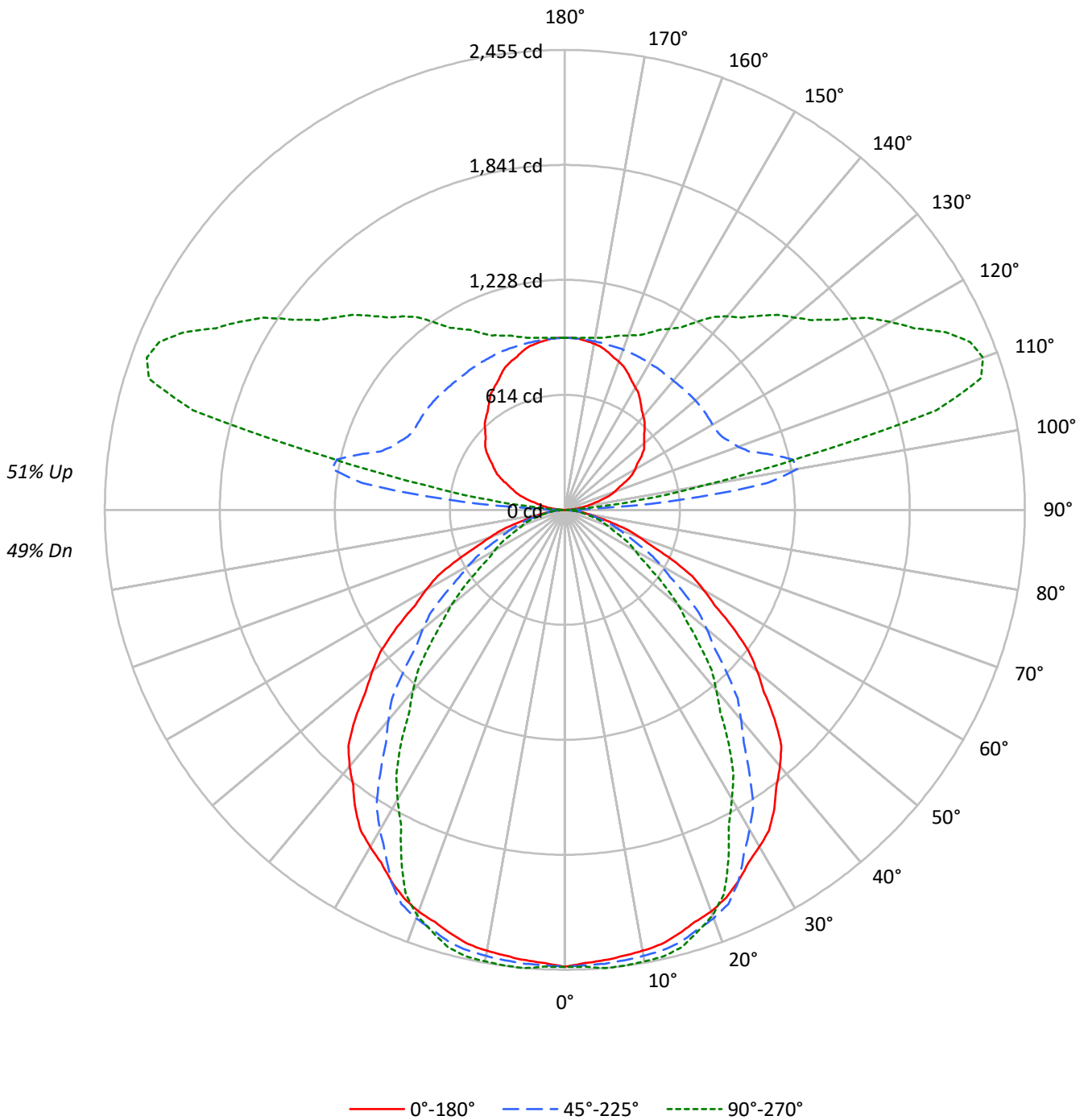
Lumens per Lamp: N/A
Luminaire Lumens: 11082.1 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	98	94	90	87	90	87	84	81	73	71	69	61	59	58	50	49	48	42
2	90	83	77	72	83	77	72	67	65	61	58	54	52	49	44	43	41	36
3	82	73	66	61	76	68	62	57	58	53	49	48	45	42	40	37	35	31
4	75	65	58	52	69	60	54	49	52	47	43	43	40	37	36	33	31	27
5	69	58	50	45	64	54	47	42	46	41	37	39	35	32	33	30	27	24
6	64	52	45	39	59	49	42	37	42	37	33	36	32	28	30	27	24	21
7	59	47	40	34	55	44	37	33	38	33	29	33	28	25	27	24	22	19
8	55	43	36	31	51	40	34	29	35	30	26	30	26	23	25	22	20	17
9	51	40	32	27	48	37	30	26	32	27	23	28	23	21	23	20	18	16
10	48	36	29	25	44	34	28	23	30	25	21	26	21	19	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39378	39378	39378
5°	39115	39417	39793
10°	39187	39643	40138
15°	39176	39913	40379
20°	39192	39871	39591
25°	38981	39022	36788
30°	38715	36767	33258
35°	38412	33835	30035
40°	37648	30844	26536
45°	36173	27738	23178
50°	33666	24797	19839
55°	30795	21903	16085
60°	27603	19052	13876
65°	24137	16416	12336
70°	19737	14582	11183
75°	15359	12608	10287
80°	11446	10795	9075
85°	7744	8170	5169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 36173 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.2	2.1
10°-20°	672.9	6.1
20°-30°	990.3	8.9
30°-40°	1082.7	9.8
40°-50°	971.3	8.8
50°-60°	724.5	6.5
60°-70°	457.9	4.1
70°-80°	226.8	2.0
80°-90°	54.1	0.5
90°-100°	350.0	3.2
100°-110°	1146.0	10.3
110°-120°	1133.0	10.2
120°-130°	926.2	8.4
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°	1895.4	17.1
0°-40°	2978.1	26.9
0°-60°	4673.8	42.2
0°-90°	5412.6	48.8
90°-120°	2629.1	23.7
90°-150°	4899.3	44.2
90°-180°	5670.0	51.2
0°-180°	11082.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2439	2439	2439	2439	2439	
5°	2413	2452	2432	2435	2455	230
15°	2344	2389	2388	2404	2416	662
25°	2188	2236	2190	2099	2065	1008
35°	1949	1928	1717	1567	1524	1215
45°	1584	1457	1215	1063	1015	1215
55°	1094	990	778	610	571	977
65°	632	580	430	346	323	626
75°	246	264	202	170	165	271
85°	42	53	44	30	28	53
90°	1	3	8	7	8	4
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°	2438.9	2438.9	2438.9	2438.9	2438.9
2.5°	2422.2	2453.1	2433.4	2435.4	2440.8
5°	2413.4	2452.0	2432.0	2434.8	2455.2
7.5°	2401.3	2440.4	2425.5	2433.8	2453.8
10°	2390.2	2431.0	2418.0	2430.1	2448.2
12.5°	2375.3	2418.0	2408.7	2422.6	2440.8
15°	2343.7	2389.1	2387.8	2404.4	2415.7
17.5°	2307.0	2352.4	2350.2	2354.5	2360.0
20°	2281.0	2326.4	2320.5	2304.2	2304.2
22.5°	2243.8	2292.9	2277.7	2233.3	2218.7
25°	2188.1	2235.8	2190.4	2099.0	2065.0
27.5°	2123.0	2161.7	2070.5	1940.8	1893.5
30°	2076.6	2106.1	1972.1	1829.3	1783.9
32.5°	2028.3	2039.6	1871.7	1723.3	1674.3
35°	1948.8	1928.4	1716.6	1566.9	1523.8
37.5°	1855.0	1794.1	1567.4	1410.7	1363.0
40°	1786.2	1699.9	1463.4	1306.7	1259.0
42.5°	1710.0	1601.9	1364.9	1208.1	1158.6
45°	1584.2	1457.0	1214.8	1062.8	1015.1
47.5°	1442.5	1316.2	1074.5	927.3	886.4
50°	1340.3	1217.6	987.2	839.7	789.8
52.5°	1236.2	1126.3	901.7	750.1	682.0
55°	1094.0	989.6	778.1	610.0	571.4
57.5°	947.7	857.3	666.2	513.5	481.7
60°	854.8	775.3	590.0	461.5	429.7
62.5°	765.6	695.2	515.7	413.3	387.0
65°	631.8	579.6	429.7	345.6	322.9
67.5°	501.7	472.7	357.2	283.5	268.5
70°	418.1	409.0	308.9	248.3	236.9
72.5°	345.6	349.3	262.5	214.9	207.2
75°	246.2	264.4	202.1	169.5	164.9
77.5°	167.7	195.0	149.6	125.3	121.7
80°	123.1	150.4	116.1	97.6	97.6
82.5°	85.9	107.7	82.7	73.4	73.4
85°	41.8	53.2	44.1	30.1	27.9
87.5°	11.3	17.2	8.9	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	19.71	20.52	20.68	21.50	22.80	16.19	17.01	17.17	17.99	19.28
	3H	21.03	21.75	22.01	22.75	24.06	17.39	18.12	18.38	19.11	20.43
	4H	21.40	22.09	22.40	23.08	24.40	17.84	18.53	18.84	19.52	20.84
	6H	21.60	22.23	22.61	23.23	24.56	18.15	18.79	19.16	19.79	21.12
	8H	21.63	22.23	22.65	23.25	24.58	18.23	18.83	19.24	19.85	21.18
	12H	21.63	22.20	22.65	23.21	24.56	18.24	18.81	19.26	19.82	21.17
4H	2H	19.80	20.49	20.81	21.49	22.81	16.87	17.56	17.88	18.55	19.88
	3H	21.35	21.92	22.36	22.94	24.28	18.25	18.82	19.27	19.85	21.18
	4H	21.85	22.37	22.87	23.39	24.75	18.80	19.32	19.82	20.34	21.70
	6H	22.18	22.63	23.21	23.67	25.02	19.20	19.65	20.23	20.69	22.04
	8H	22.26	22.68	23.29	23.71	25.08	19.31	19.72	20.34	20.76	22.13
	12H	22.27	22.65	23.32	23.70	25.07	19.33	19.70	20.38	20.75	22.12
8H	4H	21.89	22.31	22.92	23.34	24.71	19.12	19.54	20.16	20.57	21.94
	6H	22.32	22.67	23.38	23.74	25.11	19.63	19.97	20.68	21.05	22.41
	8H	22.47	22.77	23.53	23.83	25.22	19.79	20.09	20.85	21.15	22.54
	12H	22.53	22.80	23.60	23.85	25.28	19.85	20.11	20.92	21.17	22.60
12H	4H	21.84	22.22	22.90	23.27	24.64	19.14	19.51	20.19	20.56	21.93
	6H	22.31	22.62	23.38	23.68	25.06	19.69	19.99	20.76	21.05	22.44
	8H	22.47	22.74	23.54	23.79	25.22	19.88	20.14	20.94	21.20	22.63