

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: P855275

Luminaire Tested: SQ2-PW1-125U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855275
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-125U-100D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

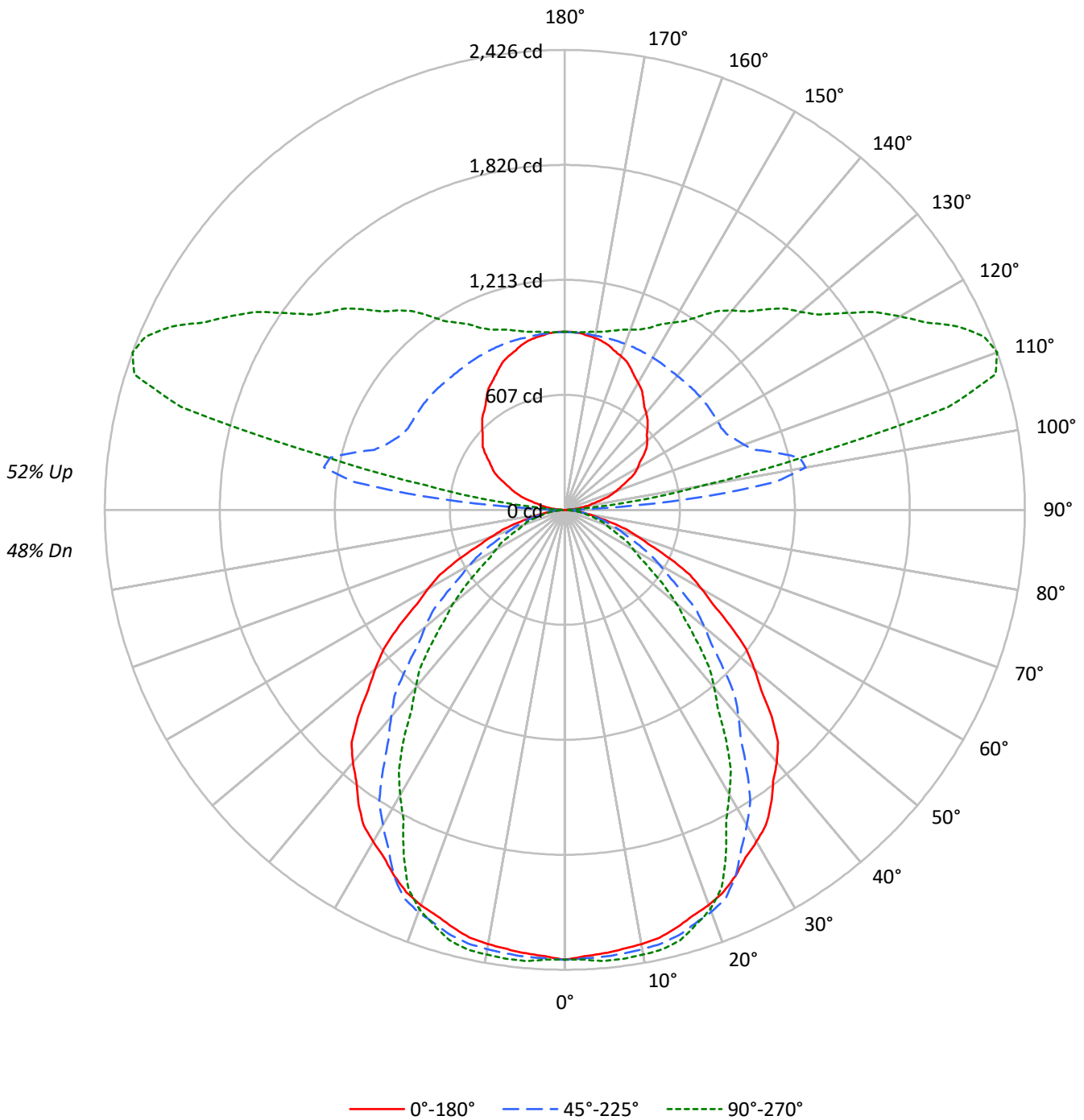
Lumens per Lamp: N/A
Luminaire Lumens: 11059.4 lumens
Efficiency: N/A
Efficacy: 135.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.5
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	0
RCR																		
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48
1	98	94	90	87	90	86	83	80	73	71	68	60	59	57	49	48	47	41
2	90	82	77	72	82	76	71	67	64	61	58	53	51	49	43	42	40	35
3	82	73	66	60	75	67	61	57	57	53	49	48	44	42	39	37	35	31
4	75	65	57	52	69	60	53	48	51	46	42	43	39	36	35	33	30	27
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	32	29	27	24
6	64	52	44	39	59	49	42	37	42	36	32	35	31	28	29	26	24	21
7	59	47	40	34	54	44	37	32	38	32	29	32	28	25	27	24	21	19
8	55	43	35	30	51	40	33	29	35	29	26	29	25	22	25	22	19	17
9	51	39	32	27	47	37	30	26	32	27	23	27	23	20	23	20	17	15
10	48	36	29	24	44	34	27	23	29	24	21	25	21	18	21	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38319	38319	38319
5°	38063	38357	38723
10°	38133	38579	39059
15°	38123	38842	39295
20°	38139	38799	38527
25°	37933	37973	35799
30°	37675	35779	32365
35°	37381	32924	29229
40°	36636	30014	25821
45°	35200	26994	22555
50°	32760	24129	19306
55°	29968	21318	15651
60°	26863	18542	13501
65°	23492	15973	12004
70°	19204	14195	10881
75°	14947	12264	10012
80°	11139	10507	8833
85°	7540	7966	5039

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 35200 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.0	2.0
10°-20°	654.8	5.9
20°-30°	963.6	8.7
30°-40°	1053.6	9.5
40°-50°	945.1	8.5
50°-60°	705.0	6.4
60°-70°	445.5	4.0
70°-80°	220.7	2.0
80°-90°	52.7	0.5
90°-100°	359.1	3.2
100°-110°	1169.2	10.6
110°-120°	1156.5	10.5
120°-130°	945.1	8.5
130°-140°	772.4	7.0
140°-150°	601.7	5.4
150°-160°	433.7	3.9
160°-170°	265.1	2.4
170°-180°	89.4	0.8
0°-30°	1844.4	16.7
0°-40°	2898.0	26.2
0°-60°	4548.2	41.1
0°-90°	5267.2	47.6
90°-120°	2684.8	24.3
90°-150°	5004.0	45.2
90°-180°	5792.0	52.4
0°-180°	11059.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2373	2373	2373	2373	2373	
5°	2348	2386	2367	2369	2389	223
15°	2281	2325	2324	2340	2351	644
25°	2129	2176	2132	2043	2010	981
35°	1896	1876	1670	1525	1483	1183
45°	1542	1418	1182	1034	988	1182
55°	1065	963	757	594	556	951
65°	615	564	418	336	314	609
75°	240	257	197	165	160	264
85°	41	52	43	29	27	52
90°	0	3	8	7	7	4
95°	48	148	658	235	144	56
105°	199	287	1158	2212	2095	212
115°	367	438	943	1944	2288	363
125°	510	569	931	1535	1810	454
135°	617	681	926	1325	1494	476
145°	721	774	924	1141	1249	451
155°	822	849	930	1022	1060	379
165°	897	905	932	967	978	253
175°	935	935	935	942	940	89
180°	939	939	939	939	939	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2373.3	2373.3	2373.3	2373.3	2373.3
2.5°	2357.1	2387.2	2368.0	2370.0	2375.2
5°	2348.5	2386.2	2366.6	2369.4	2389.2
7.5°	2336.7	2374.7	2360.3	2368.4	2387.9
10°	2325.9	2365.8	2353.1	2364.7	2382.4
12.5°	2311.5	2353.1	2344.0	2357.5	2375.2
15°	2280.7	2325.0	2323.7	2339.8	2350.8
17.5°	2245.0	2289.2	2287.1	2291.3	2296.5
20°	2219.7	2263.9	2258.1	2242.3	2242.3
22.5°	2183.5	2231.3	2216.5	2173.2	2159.1
25°	2129.3	2175.7	2131.5	2042.6	2009.5
27.5°	2066.0	2103.5	2014.9	1888.6	1842.6
30°	2020.8	2049.5	1919.1	1780.2	1736.0
32.5°	1973.7	1984.8	1821.4	1677.0	1629.2
35°	1896.5	1876.5	1670.4	1524.8	1482.9
37.5°	1805.1	1745.9	1525.3	1372.8	1326.3
40°	1738.2	1654.3	1424.0	1271.6	1225.1
42.5°	1664.1	1558.8	1328.2	1175.7	1127.5
45°	1541.6	1417.8	1182.2	1034.2	987.8
47.5°	1403.7	1280.8	1045.6	902.4	862.5
50°	1304.2	1184.9	960.6	817.2	768.6
52.5°	1202.9	1096.1	877.4	730.0	663.7
55°	1064.6	963.0	757.3	593.7	556.0
57.5°	922.2	834.3	648.3	499.7	468.8
60°	831.9	754.5	574.2	449.1	418.1
62.5°	745.0	676.5	501.8	402.2	376.5
65°	614.9	563.9	418.1	336.3	314.2
67.5°	488.2	460.0	347.6	275.9	261.3
70°	406.8	398.0	300.7	241.6	230.5
72.5°	336.3	339.8	255.5	209.2	201.6
75°	239.6	257.3	196.6	164.9	160.5
77.5°	163.2	189.7	145.6	122.0	118.4
80°	119.8	146.4	113.0	95.0	95.0
82.5°	83.7	104.9	80.4	71.4	71.4
85°	40.7	51.7	43.0	29.4	27.2
87.5°	10.8	16.8	8.9	6.8	6.8
90°	0.0	3.4	8.0	6.9	6.9
92.5°	16.7	59.8	191.0	62.9	48.5
95°	48.5	147.9	658.2	234.7	144.4
97.5°	91.3	192.4	1117.0	680.4	415.2
100°	119.0	218.3	1289.9	1150.1	746.0
102.5°	150.3	246.1	1268.5	1701.6	1293.7
105°	198.6	286.7	1158.2	2212.2	2094.7
107.5°	250.8	333.7	1053.4	2256.4	2380.8
110°	288.7	364.3	1003.4	2201.4	2426.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	320.1	394.8	972.1	2102.2	2391.9
115°	367.2	438.3	943.4	1944.2	2287.6
117.5°	415.7	479.8	932.3	1799.7	2141.3
120°	443.4	506.6	929.5	1710.8	2041.5
122.5°	470.2	532.6	930.5	1633.5	1941.8
125°	510.4	569.1	930.7	1535.1	1809.5
127.5°	544.8	604.8	930.5	1461.3	1690.1
130°	567.0	627.9	929.5	1419.2	1623.5
132.5°	586.4	650.1	928.6	1380.1	1571.8
135°	616.6	680.9	926.1	1324.8	1494.3
137.5°	646.2	711.0	923.6	1268.8	1419.2
140°	667.4	729.5	922.6	1230.7	1373.0
142.5°	687.7	747.1	922.6	1194.3	1321.2
145°	720.6	773.6	923.8	1141.0	1249.4
147.5°	752.4	798.5	925.4	1095.7	1179.5
150°	773.7	814.3	927.3	1068.6	1139.8
152.5°	794.9	828.4	928.1	1047.9	1104.6
155°	822.2	849.2	929.5	1021.7	1060.0
157.5°	848.1	867.4	930.9	1002.2	1029.0
160°	863.8	879.5	931.9	990.1	1011.6
162.5°	877.5	889.8	931.9	979.8	995.8
165°	897.2	905.2	931.9	966.8	978.0
167.5°	911.1	916.0	932.1	956.9	962.9
170°	920.3	922.5	933.0	950.4	952.6
172.5°	926.8	928.1	934.9	946.7	946.2
175°	935.4	935.4	935.4	942.2	939.9
177.5°	938.8	937.9	937.0	941.5	937.9
180°	938.8	938.8	938.8	938.8	938.8

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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	19.50	20.30	20.48	21.29	22.60	15.98	16.79	16.97	17.78	19.09
	3H	20.81	21.53	21.81	22.53	23.86	17.18	17.90	18.18	18.90	20.23
	4H	21.18	21.86	22.19	22.87	24.21	17.63	18.31	18.64	19.31	20.65
	6H	21.39	22.01	22.40	23.02	24.37	17.94	18.57	18.96	19.58	20.93
	8H	21.42	22.01	22.44	23.04	24.38	18.02	18.61	19.04	19.64	20.98
	12H	21.41	21.98	22.44	23.00	24.37	18.03	18.59	19.06	19.61	20.98
4H	2H	19.59	20.27	20.61	21.28	22.61	16.66	17.34	17.67	18.34	19.68
	3H	21.13	21.70	22.16	22.73	24.08	18.04	18.60	19.06	19.64	20.99
	4H	21.64	22.15	22.67	23.18	24.55	18.58	19.10	19.62	20.13	21.50
	6H	21.97	22.41	23.01	23.46	24.83	18.99	19.43	20.03	20.48	21.85
	8H	22.04	22.46	23.09	23.50	24.88	19.09	19.50	20.13	20.55	21.93
	12H	22.06	22.43	23.12	23.49	24.88	19.11	19.48	20.17	20.54	21.93
8H	4H	21.67	22.09	22.72	23.13	24.51	18.91	19.32	19.95	20.36	21.75
	6H	22.11	22.45	23.17	23.53	24.91	19.41	19.75	20.48	20.84	22.22
	8H	22.25	22.55	23.33	23.62	25.02	19.57	19.87	20.65	20.94	22.34
	12H	22.32	22.58	23.39	23.64	25.09	19.63	19.90	20.71	20.96	22.40
12H	4H	21.63	22.00	22.69	23.06	24.45	18.92	19.29	19.98	20.35	21.74
	6H	22.10	22.40	23.17	23.47	24.87	19.48	19.78	20.55	20.84	22.25
	8H	22.26	22.52	23.33	23.58	25.03	19.66	19.92	20.74	20.99	22.43