

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: P854055

Luminaire Tested: SQ2-PH1-125U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854055
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-125U-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

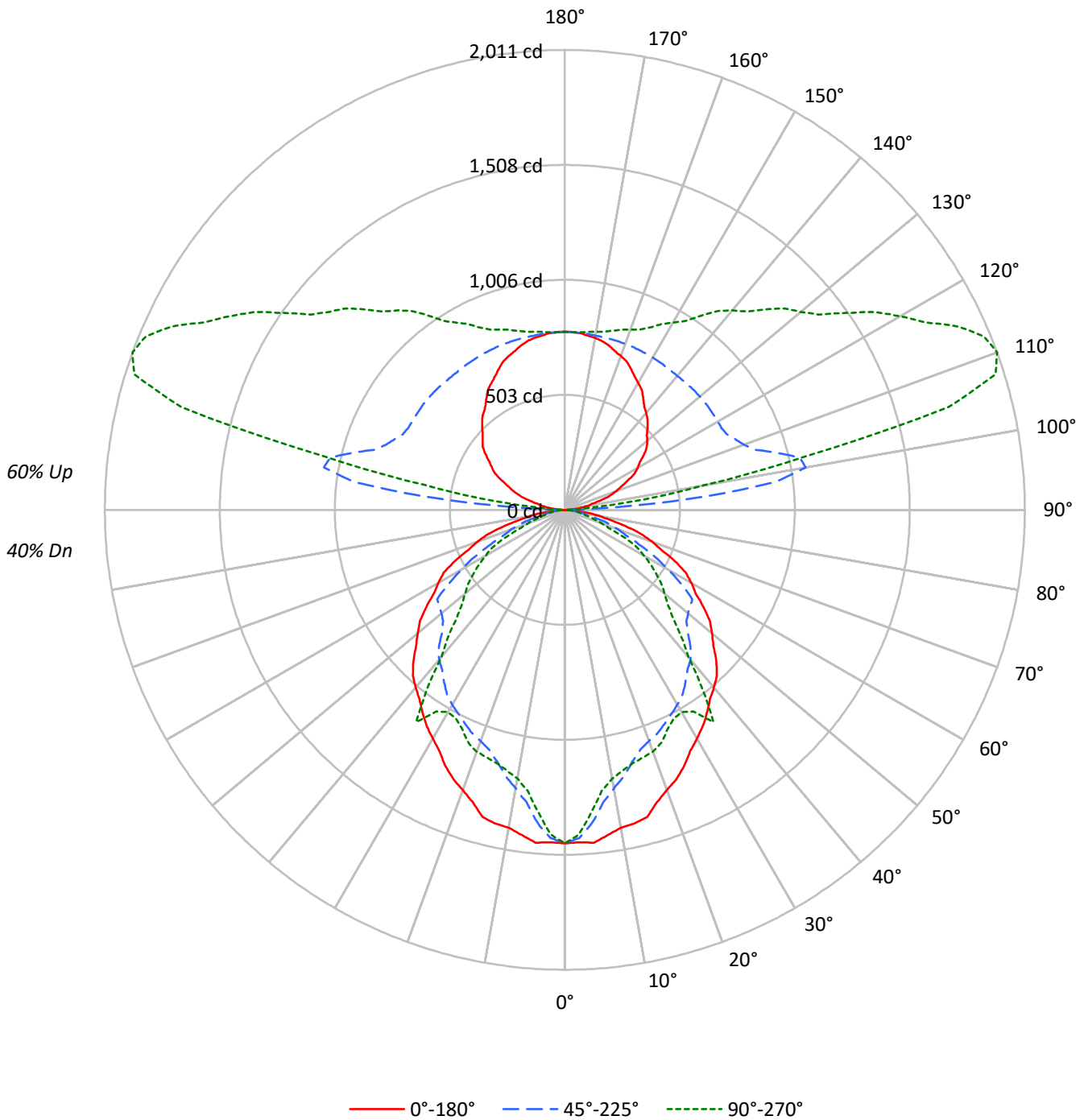
Lumens per Lamp: N/A
Luminaire Lumens: 8028.2 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.6
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	84	87	84	80	77	68	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	57	53	48	46	43	37	35	34	29
3	80	70	63	58	72	64	58	53	53	49	45	43	39	37	33	31	29	25
4	73	62	55	49	66	57	50	45	47	42	38	38	34	32	29	27	25	21
5	67	55	48	42	61	51	44	39	42	37	33	34	30	27	26	24	22	18
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	37	32	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	20	17	15	13
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23544	23544	23544
5°	23679	22263	21520
10°	23135	20267	19562
15°	23238	19064	19179
20°	22409	18476	19333
25°	21998	18390	18884
30°	21522	18340	19039
35°	21358	18132	22316
40°	21376	18014	17692
45°	21384	17328	15239
50°	21084	17668	14290
55°	20816	19175	13709
60°	20609	16801	12859
65°	20248	13624	11186
70°	19124	11594	7992
75°	17049	8740	6057
80°	13928	5672	5672
85°	8744	5132	3853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21384 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	1.6
10°-20°	337.5	4.2
20°-30°	494.9	6.2
30°-40°	599.3	7.5
40°-50°	589.4	7.3
50°-60°	513.0	6.4
60°-70°	356.7	4.4
70°-80°	169.1	2.1
80°-90°	38.1	0.5
90°-100°	297.7	3.7
100°-110°	969.3	12.1
110°-120°	958.8	11.9
120°-130°	783.5	9.8
130°-140°	640.4	8.0
140°-150°	498.8	6.2
150°-160°	359.5	4.5
160°-170°	219.7	2.7
170°-180°	74.1	0.9
0°-30°	960.7	12.0
0°-40°	1560.0	19.4
0°-60°	2662.4	33.2
0°-90°	3226.3	40.2
90°-120°	2225.8	27.7
90°-150°	4148.5	51.7
90°-180°	4802.0	59.8
0°-180°	8028.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1461	1460	1374	1330	1328	137
15°	1390	1238	1140	1132	1147	388
25°	1235	1050	1032	1064	1060	568
35°	1084	876	920	999	1132	679
45°	936	694	759	785	667	720
55°	740	540	681	491	487	661
65°	530	371	357	293	293	521
75°	273	189	140	100	97	290
85°	47	31	28	22	21	63
90°	0	3	7	6	6	3
95°	40	123	546	194	120	47
105°	165	238	960	1834	1737	176
115°	304	363	782	1612	1896	301
125°	423	472	772	1273	1500	377
135°	511	565	768	1098	1239	395
145°	597	641	766	946	1036	374
155°	682	704	771	847	879	314
165°	744	750	772	802	811	209
175°	775	775	775	781	779	74
180°	778	778	778	778	778	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1458.2	1458.2	1458.2	1458.2	1458.2
2.5°	1454.9	1470.1	1436.0	1422.7	1420.5
5°	1461.0	1459.6	1373.6	1330.5	1327.8
7.5°	1434.4	1392.3	1289.5	1242.0	1239.8
10°	1411.1	1347.3	1236.2	1193.2	1193.2
12.5°	1405.5	1304.8	1192.9	1161.2	1167.7
15°	1390.2	1238.3	1140.5	1132.5	1147.4
17.5°	1339.7	1176.1	1099.7	1117.9	1135.2
20°	1304.2	1142.8	1075.3	1109.0	1125.2
22.5°	1274.3	1110.6	1057.5	1094.4	1103.0
25°	1234.8	1050.3	1032.3	1064.1	1060.0
27.5°	1187.7	995.0	1007.0	1026.5	1028.9
30°	1154.4	961.7	983.7	1003.5	1021.2
32.5°	1122.2	923.0	958.2	1005.2	1045.6
35°	1083.6	876.0	919.9	999.2	1132.2
37.5°	1043.1	820.6	881.3	948.0	990.4
40°	1014.2	780.9	854.7	937.1	839.4
42.5°	983.2	749.8	814.7	921.1	756.2
45°	936.5	693.7	758.9	785.4	667.4
47.5°	881.6	650.2	721.2	654.9	608.8
50°	839.4	621.0	703.4	598.7	568.9
52.5°	798.4	590.8	691.2	552.3	532.2
55°	739.5	540.1	681.2	491.1	487.0
57.5°	677.1	488.5	602.4	437.8	444.8
60°	638.2	455.1	520.3	406.3	398.2
62.5°	597.2	422.7	443.7	366.4	358.2
65°	530.0	371.3	356.6	292.8	292.8
67.5°	456.2	317.8	288.9	239.6	207.0
70°	405.1	283.0	245.6	191.0	169.3
72.5°	350.8	246.0	201.2	156.5	131.5
75°	273.3	189.2	140.1	99.8	97.1
77.5°	197.6	136.3	94.3	74.1	74.4
80°	149.8	103.7	61.0	59.7	61.0
82.5°	105.4	71.3	45.5	47.5	47.7
85°	47.2	30.9	27.7	22.2	20.8
87.5°	10.0	9.5	6.9	6.7	6.7
90°	0.0	2.8	6.7	5.7	5.7
92.5°	13.8	49.5	158.3	52.2	40.2
95°	40.2	122.6	545.7	194.5	119.7
97.5°	75.6	159.5	926.1	564.0	344.2
100°	98.6	181.0	1069.3	953.5	618.4
102.5°	124.6	204.0	1051.7	1410.7	1072.6
105°	164.7	237.7	960.2	1833.9	1736.6
107.5°	207.9	276.6	873.3	1870.6	1973.8
110°	239.3	302.0	831.9	1825.0	2011.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	265.4	327.3	805.9	1742.8	1983.0
115°	304.4	363.4	782.1	1611.9	1896.4
117.5°	344.6	397.8	772.9	1492.0	1775.2
120°	367.6	420.0	770.6	1418.3	1692.5
122.5°	389.8	441.5	771.4	1354.3	1609.8
125°	423.1	471.8	771.6	1272.6	1500.1
127.5°	451.7	501.5	771.4	1211.5	1401.1
130°	470.0	520.6	770.6	1176.5	1346.0
132.5°	486.1	538.9	769.9	1144.1	1303.1
135°	511.2	564.6	767.8	1098.3	1238.8
137.5°	535.7	589.4	765.7	1051.8	1176.5
140°	553.3	604.8	764.9	1020.3	1138.2
142.5°	570.2	619.4	764.9	990.1	1095.3
145°	597.4	641.4	765.8	945.9	1035.8
147.5°	623.8	662.0	767.2	908.3	977.8
150°	641.4	675.1	768.7	885.9	944.9
152.5°	659.0	686.7	769.5	868.8	915.8
155°	681.6	704.1	770.6	847.0	878.8
157.5°	703.0	719.1	771.8	830.9	853.1
160°	716.1	729.2	772.5	820.8	838.6
162.5°	727.6	737.7	772.5	812.3	825.6
165°	743.8	750.4	772.5	801.5	810.8
167.5°	755.3	759.4	772.7	793.3	798.2
170°	763.0	764.8	773.5	787.9	789.8
172.5°	768.3	769.5	775.0	784.8	784.4
175°	775.4	775.4	775.4	781.1	779.2
177.5°	778.3	777.5	776.8	780.5	777.5
180°	778.3	778.3	778.3	778.3	778.3

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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	17.32	18.10	18.36	19.14	20.54	15.99	16.77	17.03	17.81	19.22
	3H	19.34	20.03	20.39	21.08	22.51	17.02	17.71	18.07	18.77	20.19
	4H	20.07	20.72	21.13	21.78	23.21	17.23	17.89	18.29	18.94	20.37
	6H	20.55	21.15	21.62	22.21	23.65	17.37	17.97	18.44	19.03	20.48
	8H	20.67	21.24	21.74	22.32	23.76	17.40	17.97	18.47	19.05	20.49
	12H	20.71	21.26	21.79	22.32	23.79	17.39	17.94	18.47	19.01	20.47
4H	2H	17.69	18.34	18.75	19.40	20.83	16.62	17.28	17.69	18.34	19.77
	3H	19.78	20.33	20.86	21.41	22.86	17.80	18.34	18.87	19.42	20.87
	4H	20.59	21.09	21.67	22.17	23.63	18.07	18.57	19.15	19.64	21.11
	6H	21.17	21.60	22.26	22.70	24.16	18.27	18.70	19.36	19.80	21.26
	8H	21.34	21.74	22.43	22.83	24.31	18.33	18.73	19.41	19.81	21.29
	12H	21.41	21.77	22.51	22.87	24.35	18.33	18.69	19.44	19.79	21.27
8H	4H	20.60	21.00	21.69	22.09	23.57	18.28	18.68	19.37	19.76	21.24
	6H	21.25	21.58	22.36	22.71	24.19	18.54	18.87	19.66	20.00	21.48
	8H	21.48	21.77	22.60	22.88	24.37	18.65	18.94	19.77	20.05	21.54
	12H	21.59	21.84	22.71	22.95	24.48	18.69	18.94	19.81	20.05	21.58
12H	4H	20.55	20.91	21.66	22.02	23.50	18.27	18.63	19.38	19.73	21.21
	6H	21.23	21.51	22.34	22.63	24.12	18.57	18.86	19.69	19.98	21.47
	8H	21.45	21.71	22.58	22.82	24.35	18.69	18.94	19.81	20.05	21.58