

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: P854947

Luminaire Tested: SQ2-PH1-125U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854947
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-050D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

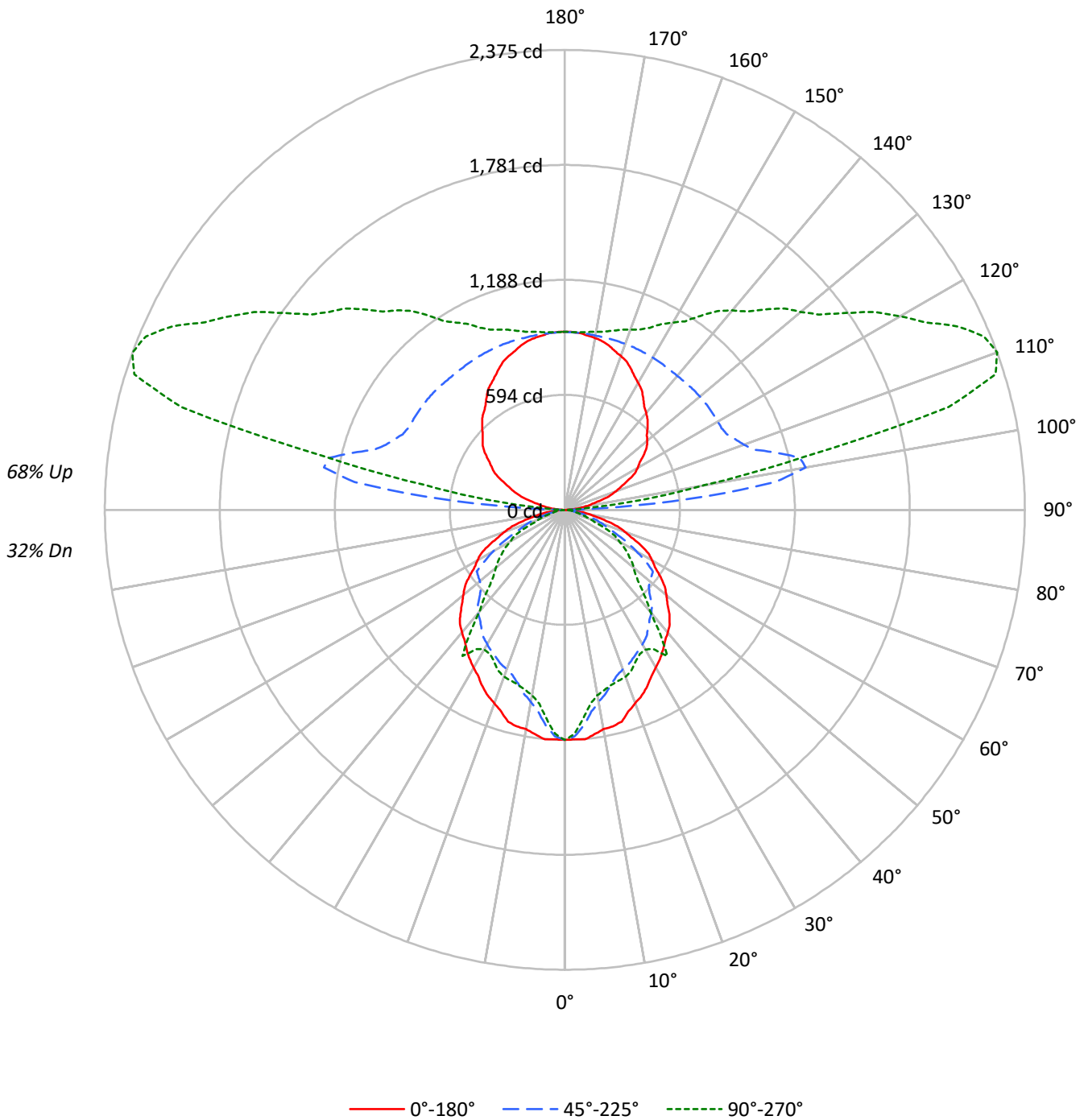
Lumens per Lamp: N/A
Luminaire Lumens: 8300.2 lumens
Efficiency: N/A
Efficacy: 134.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 61.7
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	103	103	103	103	92	92	92	92	73	73	73	56	56	56	39	39	39	32
1	94	90	86	83	84	81	78	75	64	62	60	49	48	46	35	34	33	27
2	85	78	73	68	77	71	66	62	56	53	50	43	41	39	31	29	28	23
3	78	69	62	56	70	62	56	51	50	45	42	38	35	33	27	26	24	19
4	71	61	53	48	64	55	49	44	44	39	36	34	31	28	24	22	21	17
5	65	54	46	41	59	49	42	37	39	34	31	30	27	24	22	20	18	14
6	60	48	41	35	54	44	37	32	35	30	27	27	24	21	20	18	16	13
7	55	44	36	31	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	21	23	19	17	17	14	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19186	19186	19186
5°	19297	18141	17537
10°	18853	16516	15942
15°	18937	15535	15629
20°	18261	15055	15756
25°	17927	14986	15389
30°	17538	14945	15515
35°	17404	14775	18185
40°	17420	14680	14417
45°	17427	14123	12417
50°	17181	14398	11645
55°	16963	15626	11173
60°	16795	13692	10479
65°	16500	11102	9116
70°	15583	9446	6510
75°	13893	7124	4934
80°	11353	4621	4621
85°	7114	4187	3149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17427 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	1.3
10°-20°	275.0	3.3
20°-30°	403.3	4.9
30°-40°	488.4	5.9
40°-50°	480.3	5.8
50°-60°	418.1	5.0
60°-70°	290.7	3.5
70°-80°	137.8	1.7
80°-90°	31.4	0.4
90°-100°	351.6	4.2
100°-110°	1144.6	13.8
110°-120°	1132.3	13.6
120°-130°	925.3	11.1
130°-140°	756.2	9.1
140°-150°	589.0	7.1
150°-160°	424.6	5.1
160°-170°	259.5	3.1
170°-180°	87.6	1.1
0°-30°	782.9	9.4
0°-40°	1271.3	15.3
0°-60°	2169.6	26.1
0°-90°	2629.5	31.7
90°-120°	2628.5	31.7
90°-150°	4899.1	59.0
90°-180°	5671.0	68.3
0°-180°	8300.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1191	1189	1119	1084	1082	112
15°	1133	1009	929	923	935	316
25°	1006	856	841	867	864	463
35°	883	714	750	814	923	553
45°	763	565	618	640	544	587
55°	603	440	555	400	397	538
65°	432	303	291	239	239	424
75°	223	154	114	81	79	236
85°	38	25	23	18	17	51
90°	0	3	8	7	7	3
95°	48	145	644	230	141	55
105°	194	281	1134	2166	2051	207
115°	360	429	924	1904	2240	356
125°	500	557	911	1503	1772	445
135°	604	667	907	1297	1463	466
145°	705	757	904	1117	1223	442
155°	805	832	910	1000	1038	371
165°	878	886	912	946	958	247
175°	916	916	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°	1188.3	1188.3	1188.3	1188.3	1188.3
2.5°	1185.6	1198.0	1170.2	1159.4	1157.6
5°	1190.6	1189.4	1119.3	1084.3	1082.0
7.5°	1168.9	1134.6	1050.8	1012.2	1010.3
10°	1149.9	1098.0	1007.4	972.4	972.4
12.5°	1145.3	1063.4	972.1	946.2	951.5
15°	1132.9	1009.1	929.4	922.9	935.0
17.5°	1091.7	958.4	896.1	911.0	925.1
20°	1062.8	931.3	876.2	903.7	917.0
22.5°	1038.4	905.1	861.8	891.7	898.9
25°	1006.3	855.9	841.2	867.1	863.8
27.5°	967.8	810.9	820.6	836.4	838.5
30°	940.7	783.8	801.6	817.8	832.2
32.5°	914.5	752.2	780.8	819.2	852.1
35°	883.0	713.9	749.6	814.3	922.6
37.5°	850.0	668.7	718.2	772.6	807.1
40°	826.5	636.3	696.5	763.6	684.0
42.5°	801.2	611.0	663.9	750.6	616.2
45°	763.2	565.3	618.5	640.1	543.8
47.5°	718.4	529.8	587.7	533.7	496.1
50°	684.0	506.1	573.2	487.9	463.6
52.5°	650.6	481.4	563.3	450.1	433.7
55°	602.6	440.2	555.1	400.1	396.9
57.5°	551.8	398.1	490.9	356.7	362.5
60°	520.1	370.9	424.0	331.2	324.5
62.5°	486.6	344.5	361.6	298.6	291.9
65°	431.9	302.6	290.6	238.6	238.6
67.5°	371.8	259.0	235.4	195.3	168.7
70°	330.1	230.7	200.1	155.6	137.9
72.5°	285.8	200.5	163.9	127.5	107.2
75°	222.7	154.2	114.2	81.4	79.1
77.5°	161.0	111.0	76.9	60.4	60.6
80°	122.1	84.6	49.7	48.6	49.7
82.5°	85.9	58.1	37.1	38.7	38.9
85°	38.4	25.2	22.6	18.1	17.0
87.5°	8.1	7.9	6.1	5.9	5.9
90°	0.0	3.3	7.9	6.8	6.8
92.5°	16.3	58.5	187.0	61.6	47.5
95°	47.5	144.7	644.4	229.7	141.3
97.5°	89.3	188.4	1093.7	666.1	406.6
100°	116.5	213.7	1262.8	1126.0	730.3
102.5°	147.2	240.9	1242.0	1665.9	1266.7
105°	194.5	280.6	1133.9	2165.7	2050.8
107.5°	245.6	326.6	1031.3	2209.1	2330.9
110°	282.7	356.7	982.4	2155.2	2375.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	313.4	386.6	951.7	2058.1	2341.8
115°	359.5	429.2	923.6	1903.6	2239.6
117.5°	407.0	469.8	912.8	1761.9	2096.4
120°	434.2	496.0	910.1	1674.8	1998.8
122.5°	460.4	521.3	911.0	1599.3	1901.1
125°	499.6	557.2	911.2	1502.9	1771.5
127.5°	533.3	592.2	911.0	1430.7	1654.6
130°	555.0	614.7	910.1	1389.4	1589.5
132.5°	574.0	636.4	909.2	1351.1	1538.8
135°	603.7	666.7	906.7	1297.1	1462.9
137.5°	632.6	696.1	904.2	1242.1	1389.4
140°	653.4	714.2	903.3	1204.9	1344.2
142.5°	673.3	731.5	903.3	1169.3	1293.6
145°	705.4	757.4	904.4	1117.1	1223.2
147.5°	736.6	781.7	906.0	1072.6	1154.7
150°	757.4	797.2	907.8	1046.2	1115.8
152.5°	778.2	811.0	908.7	1025.9	1081.5
155°	804.9	831.5	910.1	1000.3	1037.8
157.5°	830.2	849.2	911.4	981.2	1007.5
160°	845.6	861.1	912.3	969.3	990.3
162.5°	859.2	871.2	912.3	959.2	975.0
165°	878.4	886.2	912.3	946.5	957.5
167.5°	892.0	896.8	912.5	936.9	942.6
170°	901.0	903.3	913.4	930.5	932.7
172.5°	907.3	908.7	915.3	926.8	926.3
175°	915.7	915.7	915.7	922.5	920.2
177.5°	919.1	918.2	917.3	921.7	918.2
180°	919.1	919.1	919.1	919.1	919.1



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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	15.60	16.31	16.70	17.41	18.92	14.27	14.99	15.38	16.08	17.60
	3H	17.61	18.25	18.72	19.36	20.89	15.30	15.93	16.41	17.04	18.57
	4H	18.34	18.94	19.46	20.05	21.58	15.50	16.11	16.62	17.21	18.75
	6H	18.82	19.37	19.94	20.48	22.03	15.64	16.20	16.77	17.30	18.85
	8H	18.94	19.47	20.07	20.59	22.13	15.67	16.20	16.80	17.32	18.86
	12H	18.98	19.48	20.11	20.60	22.16	15.66	16.16	16.80	17.28	18.84
4H	2H	15.96	16.56	17.09	17.67	19.20	14.90	15.50	16.02	16.61	18.14
	3H	18.05	18.55	19.18	19.69	21.23	16.06	16.57	17.19	17.70	19.24
	4H	18.86	19.32	19.99	20.44	22.01	16.33	16.79	17.47	17.92	19.48
	6H	19.43	19.83	20.58	20.98	22.53	16.53	16.93	17.67	18.07	19.63
	8H	19.60	19.97	20.74	21.11	22.68	16.58	16.95	17.73	18.09	19.66
	12H	19.66	20.00	20.82	21.14	22.72	16.58	16.92	17.74	18.07	19.65
8H	4H	18.86	19.23	20.01	20.37	21.94	16.53	16.90	17.68	18.04	19.62
	6H	19.51	19.81	20.67	20.99	22.56	16.80	17.10	17.96	18.28	19.85
	8H	19.73	20.00	20.90	21.16	22.75	16.90	17.17	18.07	18.33	19.92
	12H	19.84	20.07	21.01	21.23	22.85	16.94	17.17	18.11	18.33	19.95
12H	4H	18.81	19.14	19.97	20.29	21.87	16.52	16.86	17.68	18.01	19.59
	6H	19.48	19.75	20.65	20.91	22.50	16.83	17.10	18.00	18.25	19.84
	8H	19.71	19.94	20.88	21.10	22.72	16.94	17.17	18.11	18.33	19.95