

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: P854891

Luminaire Tested: SQ2-PR1-125U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854891
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-125U-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

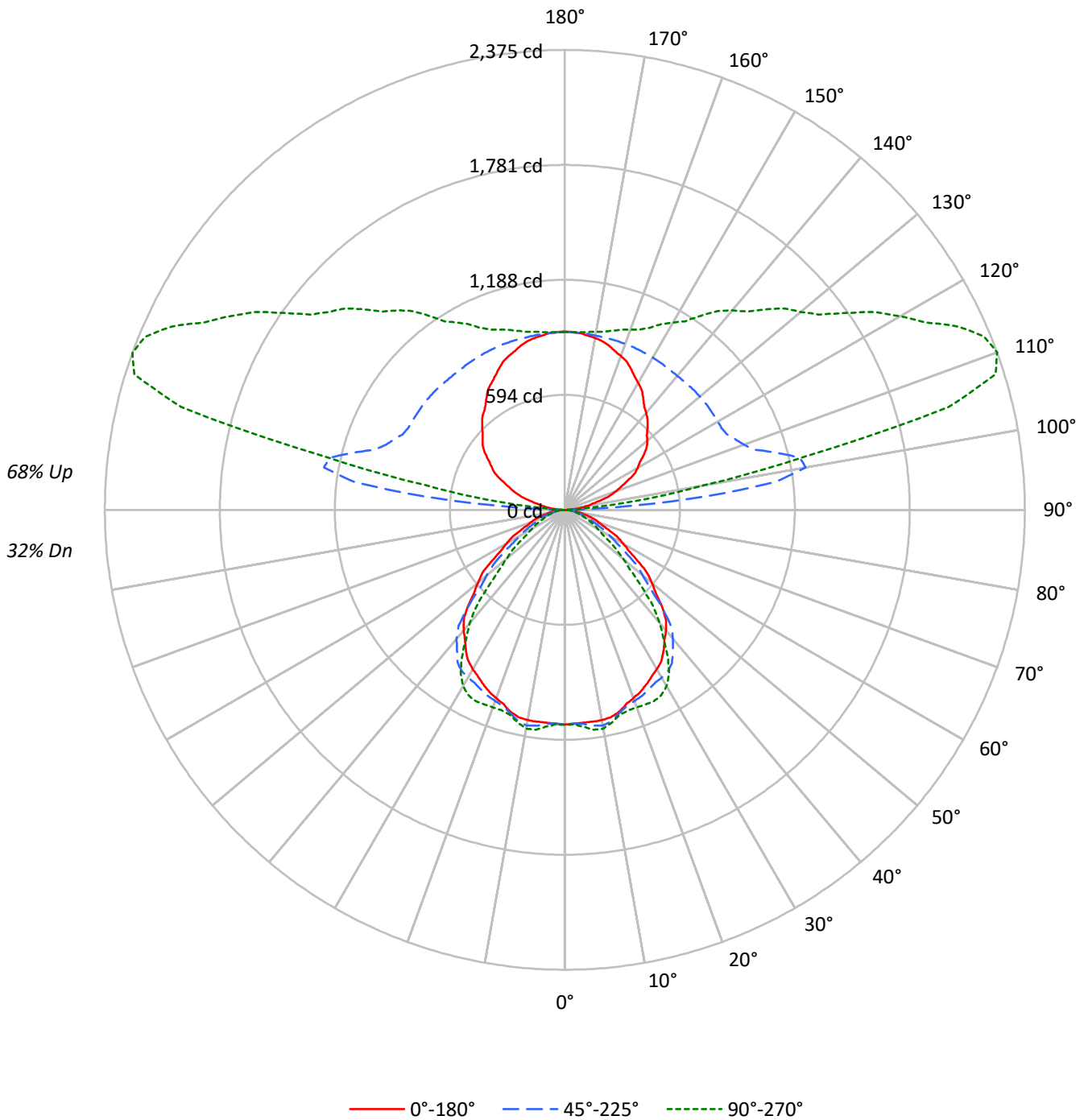
Lumens per Lamp: N/A
Luminaire Lumens: 8340.0 lumens
Efficiency: N/A
Efficacy: 135.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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

TEST NUMBER: P854891

CATALOG NUMBER: SQ2-PR1-125U-050D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854891

CATALOG NUMBER: SQ2-PR1-125U-050D-830-UNV-STD-W-4

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	50	30	10	0	
RCR																						
0	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40	32				32
1	94	90	86	83	85	81	78	76	65	63	61	50	48	47	36	35	34	28				28
2	86	79	73	69	77	71	67	63	57	54	51	44	42	40	32	31	29	24				24
3	79	70	63	57	71	63	57	53	51	47	43	39	36	34	28	27	25	21				21
4	72	62	54	49	65	56	50	45	45	41	37	35	32	29	26	24	22	18				18
5	66	55	47	42	59	50	43	39	40	36	32	32	28	26	23	21	19	16				16
6	61	49	42	36	55	45	38	33	36	32	28	29	25	23	21	19	17	14				14
7	56	45	37	32	51	41	34	29	33	28	25	26	23	20	19	17	15	13				13
8	52	40	33	28	47	37	30	26	30	25	22	24	20	18	18	15	14	11				11
9	49	37	30	25	44	34	27	23	28	23	19	22	18	16	16	14	12	10				10
10	45	34	27	22	41	31	25	21	25	21	17	20	17	14	15	13	11	9				9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17909	17909	17909
5°	17885	17995	18216
10°	18074	18536	18815
15°	18068	18161	18313
20°	17775	18048	18649
25°	17726	18228	19417
30°	17706	18634	19604
35°	17538	19032	18252
40°	17133	18326	16063
45°	16212	16084	12702
50°	14740	13150	9854
55°	12954	10821	7671
60°	11208	8654	6316
65°	9677	7171	5528
70°	8700	6349	4910
75°	7973	5502	4517
80°	6936	4417	4417
85°	5020	3983	2093

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17527 cd/sqm



TEST NUMBER: P854891

CATALOG NUMBER: SQ2-PR1-125U-050D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	1.3
10°-20°	310.1	3.7
20°-30°	479.3	5.7
30°-40°	576.5	6.9
40°-50°	517.6	6.2
50°-60°	346.8	4.2
60°-70°	201.7	2.4
70°-80°	103.6	1.2
80°-90°	26.6	0.3
90°-100°	351.6	4.2
100°-110°	1144.6	13.7
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	1.0
0°-30°	896.5	10.7
0°-40°	1473.0	17.7
0°-60°	2337.4	28.0
0°-90°	2669.2	32.0
90°-120°	2628.5	31.5
90°-150°	4899.1	58.7
90°-180°	5671.0	68.0
0°-180°	8340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1109	1109	1109	1109	1109	
5°	1104	1122	1110	1113	1124	105
15°	1081	1125	1086	1090	1096	304
25°	995	1035	1023	1061	1090	459
35°	890	898	966	947	926	555
45°	710	768	704	594	556	543
55°	460	478	384	297	272	414
65°	253	259	188	152	145	256
75°	128	124	88	75	72	136
85°	27	22	22	15	11	34
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	



TEST NUMBER: P854891

CATALOG NUMBER: SQ2-PR1-125U-050D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1109.2	1109.2	1109.2	1109.2	1109.2
2.5°	1104.6	1117.9	1105.5	1106.6	1109.2
5°	1103.5	1122.3	1110.3	1112.8	1123.9
7.5°	1103.3	1130.1	1124.3	1131.2	1145.8
10°	1102.4	1134.5	1130.6	1132.1	1147.6
12.5°	1096.9	1134.4	1117.1	1115.7	1124.1
15°	1080.9	1125.1	1086.5	1090.1	1095.6
17.5°	1052.6	1098.9	1062.1	1074.6	1085.4
20°	1034.5	1079.9	1050.4	1066.6	1085.4
22.5°	1018.3	1063.6	1039.5	1062.2	1088.1
25°	995.0	1034.8	1023.2	1061.2	1089.9
27.5°	970.5	993.9	1007.6	1058.5	1078.6
30°	949.7	965.2	999.5	1043.8	1051.5
32.5°	927.1	936.4	988.6	1011.7	1001.7
35°	889.8	897.6	965.6	947.0	926.0
37.5°	845.5	861.4	913.8	860.3	836.2
40°	812.9	839.5	869.5	789.8	762.1
42.5°	773.1	815.6	810.7	709.0	675.2
45°	710.0	767.6	704.4	593.8	556.3
47.5°	635.6	694.7	591.3	492.6	457.5
50°	586.8	634.3	523.5	431.0	392.3
52.5°	537.1	571.3	465.6	373.2	338.1
55°	460.2	477.8	384.4	296.8	272.5
57.5°	389.6	400.9	314.1	239.7	221.8
60°	347.1	354.8	268.0	210.0	195.6
62.5°	308.2	314.2	230.9	184.7	173.9
65°	253.3	258.8	187.7	152.4	144.7
67.5°	209.6	212.4	154.4	126.7	119.4
70°	184.3	185.4	134.5	109.6	104.0
72.5°	161.7	160.1	115.6	95.1	91.4
75°	127.8	124.5	88.2	74.6	72.4
77.5°	95.4	91.9	62.0	57.4	57.4
80°	74.6	70.2	47.5	47.5	47.5
82.5°	55.6	49.4	36.6	36.6	35.7
85°	27.1	21.6	21.5	14.6	11.3
87.5°	7.2	7.9	4.3	4.1	4.1
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



TEST NUMBER: P854891

CATALOG NUMBER: SQ2-PR1-125U-050D-830-UNV-STD-W-4

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

TEST NUMBER: P854891

CATALOG NUMBER: SQ2-PR1-125U-050D-830-UNV-STD-W-4

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	14.84	15.54	15.94	16.63	18.14	11.56	12.26	12.67	13.36	14.87
	3H	16.06	16.68	17.17	17.79	19.31	12.62	13.24	13.73	14.34	15.87
	4H	16.50	17.09	17.63	18.20	19.73	13.01	13.60	14.13	14.70	16.24
	6H	16.81	17.35	17.94	18.46	20.01	13.33	13.87	14.46	14.98	16.53
	8H	16.89	17.40	18.02	18.53	20.06	13.41	13.93	14.55	15.05	16.59
	12H	16.91	17.40	18.05	18.52	20.08	13.42	13.90	14.55	15.02	16.58
4H	2H	14.89	15.48	16.03	16.59	18.12	12.11	12.70	13.24	13.81	15.34
	3H	16.35	16.84	17.49	17.97	19.52	13.36	13.85	14.50	14.98	16.53
	4H	16.94	17.39	18.08	18.51	20.08	13.86	14.31	15.00	15.43	17.00
	6H	17.38	17.77	18.53	18.91	20.47	14.29	14.67	15.44	15.82	17.37
	8H	17.51	17.87	18.66	19.01	20.58	14.41	14.77	15.55	15.90	17.48
	12H	17.56	17.89	18.72	19.03	20.61	14.42	14.75	15.58	15.90	17.47
8H	4H	16.96	17.31	18.10	18.45	20.02	14.16	14.52	15.30	15.65	17.22
	6H	17.50	17.79	18.66	18.97	20.54	14.69	14.98	15.85	16.16	17.73
	8H	17.70	17.95	18.87	19.11	20.70	14.87	15.13	16.04	16.29	17.88
	12H	17.79	18.02	18.97	19.18	20.80	14.93	15.16	16.10	16.31	17.93
12H	4H	16.91	17.23	18.07	18.38	19.96	14.17	14.49	15.33	15.64	17.22
	6H	17.49	17.74	18.66	18.90	20.49	14.75	15.01	15.92	16.16	17.75
	8H	17.69	17.92	18.86	19.07	20.70	14.95	15.17	16.12	16.33	17.95