

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: P855084

Luminaire Tested: SQ2-PW1-050U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855084
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

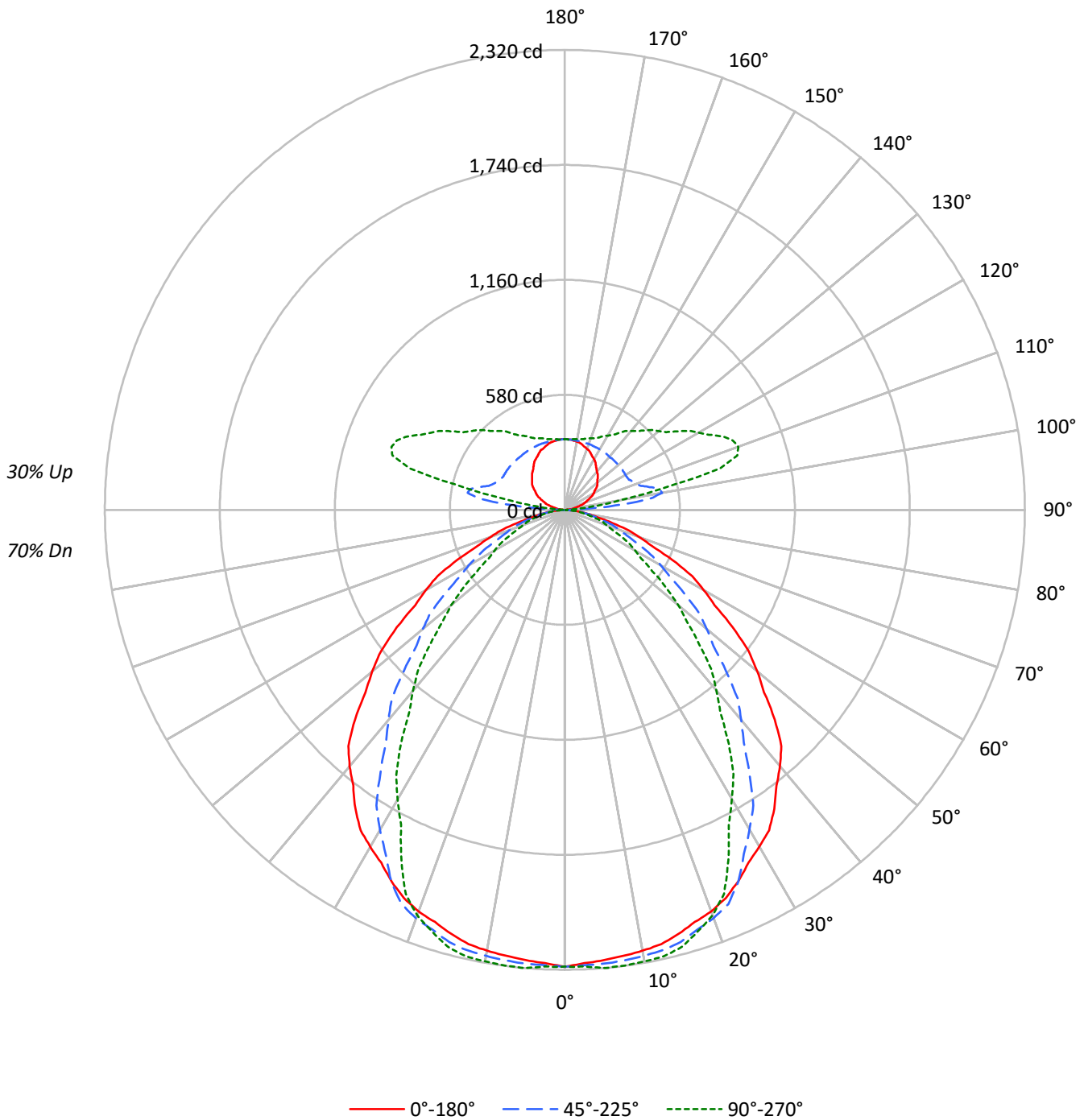
Lumens per Lamp: N/A
Luminaire Lumens: 7328.5 lumens
Efficiency: N/A
Efficacy: 139.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.4
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: P855084

CATALOG NUMBER: SQ2-PW1-050U-100D-835-UNV-STD-W-4

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	50	30	10	0	
RCR																						
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	70	
1	103	99	95	92	97	94	91	88	84	82	79	75	73	72	67	66	64	64	64	64	60	
2	95	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	55	55	55	55	52	
3	87	78	70	65	82	74	67	62	67	61	57	60	56	53	54	51	48	48	48	48	45	
4	80	69	61	55	75	66	59	53	60	54	50	54	49	46	49	45	42	42	42	42	39	
5	74	62	54	48	70	59	52	47	54	48	43	49	44	40	44	40	37	37	37	37	34	
6	68	56	48	42	64	54	46	41	49	43	38	44	40	36	40	36	33	33	33	33	31	
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	30	30	30	27	
8	59	47	39	34	56	45	38	33	41	35	31	37	32	29	34	30	27	27	27	27	25	
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	24	24	24	22	
10	52	39	32	27	49	38	31	27	35	29	25	32	27	24	29	25	22	22	22	22	21	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37210	37210	37210
5°	36961	37246	37601
10°	37030	37461	37930
15°	37020	37717	38158
20°	37036	37675	37412
25°	36836	36873	34762
30°	36584	34742	31428
35°	36299	31970	28381
40°	35576	29145	25073
45°	34182	26213	21902
50°	31810	23431	18746
55°	29101	20701	15198
60°	26085	18006	13110
65°	22812	15511	11656
70°	18652	13785	10565
75°	14516	11909	9719
80°	10814	10209	8573
85°	7317	7744	4891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 34182 cd/sqm



TEST NUMBER: P855084

CATALOG NUMBER: SQ2-PW1-050U-100D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.5	3.0
10°-20°	635.9	8.7
20°-30°	935.7	12.8
30°-40°	1023.1	14.0
40°-50°	917.8	12.5
50°-60°	684.6	9.3
60°-70°	432.7	5.9
70°-80°	214.3	2.9
80°-90°	50.6	0.7
90°-100°	142.0	1.9
100°-110°	450.5	6.1
110°-120°	441.7	6.0
120°-130°	359.4	4.9
130°-140°	293.1	4.0
140°-150°	228.5	3.1
150°-160°	164.6	2.2
160°-170°	100.6	1.4
170°-180°	33.9	0.5
0°-30°	1791.1	24.4
0°-40°	2814.1	38.4
0°-60°	4416.5	60.3
0°-90°	5114.2	69.8
90°-120°	1034.2	14.1
90°-150°	1915.2	26.1
90°-180°	2214.0	30.2
0°-180°	7328.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2280	2317	2298	2301	2320	217
15°	2215	2258	2256	2272	2283	625
25°	2068	2113	2070	1984	1951	952
35°	1842	1822	1622	1481	1440	1149
45°	1497	1377	1148	1004	959	1148
55°	1034	935	735	576	540	923
65°	597	548	406	327	305	592
75°	233	250	191	160	156	256
85°	40	50	42	28	26	50
90°	0	1	3	3	3	2
95°	19	58	258	96	62	22
105°	78	110	444	846	811	83
115°	140	166	359	745	877	138
125°	194	217	353	584	688	173
135°	234	257	351	503	566	181
145°	274	294	351	434	472	171
155°	312	323	352	387	402	144
165°	340	343	353	367	370	96
175°	356	354	356	358	357	34
180°	357	357	357	357	357	



TEST NUMBER: P855084

CATALOG NUMBER: SQ2-PW1-050U-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2304.6	2304.6	2304.6	2304.6	2304.6
2.5°	2288.9	2318.1	2299.4	2301.4	2306.4
5°	2280.5	2317.1	2298.1	2300.8	2320.0
7.5°	2269.1	2306.0	2292.0	2299.9	2318.8
10°	2258.6	2297.3	2284.9	2296.3	2313.5
12.5°	2244.5	2284.9	2276.1	2289.2	2306.4
15°	2214.7	2257.7	2256.4	2272.0	2282.8
17.5°	2180.0	2222.9	2220.9	2225.0	2230.1
20°	2155.5	2198.4	2192.7	2177.4	2177.4
22.5°	2120.3	2166.7	2152.3	2110.3	2096.6
25°	2067.7	2112.7	2069.8	1983.5	1951.3
27.5°	2006.2	2042.7	1956.5	1834.0	1789.3
30°	1962.3	1990.1	1863.5	1728.6	1685.7
32.5°	1916.6	1927.3	1768.7	1628.5	1582.1
35°	1841.6	1822.2	1622.0	1480.7	1439.9
37.5°	1752.8	1695.3	1481.1	1333.1	1287.9
40°	1687.9	1606.4	1382.8	1234.8	1189.6
42.5°	1615.9	1513.7	1289.8	1141.6	1094.9
45°	1497.0	1376.8	1148.0	1004.2	959.2
47.5°	1363.1	1243.7	1015.3	876.2	837.5
50°	1266.4	1150.6	932.8	793.5	746.3
52.5°	1168.1	1064.3	852.0	708.9	644.5
55°	1033.8	935.1	735.4	576.5	539.9
57.5°	895.5	810.2	629.5	485.3	455.3
60°	807.8	732.6	557.6	436.1	406.0
62.5°	723.5	656.9	487.3	390.5	365.6
65°	597.1	547.6	406.0	326.6	305.1
67.5°	474.1	446.7	337.6	267.9	253.7
70°	395.1	386.5	292.0	234.6	223.8
72.5°	326.6	330.0	248.1	203.1	195.8
75°	232.7	249.9	190.9	160.1	155.8
77.5°	158.4	184.2	141.3	118.5	115.0
80°	116.3	142.1	109.8	92.2	92.2
82.5°	81.3	101.8	78.1	69.4	69.4
85°	39.5	50.2	41.8	28.5	26.4
87.5°	10.5	16.0	7.7	5.9	5.9
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.9	79.7	26.5	18.6
95°	19.0	57.5	257.9	95.6	61.7
97.5°	35.4	74.5	436.8	273.0	167.5
100°	47.1	84.4	497.8	453.9	294.9
102.5°	59.6	95.2	487.1	666.5	510.2
105°	78.5	110.3	444.1	845.8	810.7
107.5°	97.3	126.7	403.0	864.5	911.9
110°	109.9	138.4	382.4	843.0	930.7



TEST NUMBER: P855084

CATALOG NUMBER: SQ2-PW1-050U-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.4	149.2	370.7	805.9	917.2
115°	140.2	166.5	358.9	745.3	876.9
117.5°	157.4	182.4	354.1	687.0	819.7
120°	168.2	192.3	353.2	651.0	779.4
122.5°	178.9	202.2	353.2	622.2	741.7
125°	194.0	217.1	353.2	584.4	688.5
127.5°	207.2	229.4	353.2	555.1	643.9
130°	215.2	238.3	353.2	537.8	617.9
132.5°	223.4	246.4	352.3	524.2	596.3
135°	234.4	257.3	350.9	502.7	566.3
137.5°	245.1	269.2	350.7	482.1	538.9
140°	252.2	276.5	349.9	467.6	519.2
142.5°	261.3	284.5	350.7	453.2	501.2
145°	273.6	294.5	350.9	433.7	472.1
147.5°	286.0	303.7	351.2	416.5	447.9
150°	294.9	309.2	352.1	406.5	431.7
152.5°	302.0	314.6	352.1	398.3	419.2
155°	311.8	322.8	352.1	387.3	402.5
157.5°	322.1	329.5	353.2	380.4	390.9
160°	327.4	334.0	353.2	375.8	384.7
162.5°	332.8	337.7	353.2	372.2	378.3
165°	339.7	343.0	353.2	366.8	370.1
167.5°	346.3	347.2	354.3	362.9	365.8
170°	349.9	349.9	354.3	361.1	362.2
172.5°	351.6	352.5	354.3	359.3	359.5
175°	355.5	354.3	355.5	357.7	356.6
177.5°	356.6	355.7	355.7	357.5	355.7
180°	356.6	356.6	356.6	356.6	356.6



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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	21.30	22.31	22.07	23.10	24.06	17.79	18.80	18.56	19.59	20.55
	3H	22.63	23.54	23.42	24.34	25.33	19.00	19.91	19.79	20.71	21.70
	4H	23.01	23.87	23.82	24.68	25.68	19.46	20.31	20.26	21.12	22.12
	6H	23.23	24.01	24.04	24.83	25.84	19.78	20.57	20.60	21.38	22.40
	8H	23.26	24.01	24.09	24.84	25.86	19.86	20.61	20.69	21.44	22.46
	12H	23.26	23.97	24.10	24.80	25.85	19.88	20.59	20.71	21.42	22.46
4H	2H	21.42	22.27	22.23	23.08	24.09	18.49	19.34	19.30	20.15	21.15
	3H	22.98	23.69	23.80	24.53	25.55	19.89	20.59	20.71	21.44	22.46
	4H	23.49	24.14	24.33	24.98	26.02	20.44	21.08	21.28	21.92	22.97
	6H	23.83	24.39	24.69	25.25	26.31	20.85	21.40	21.70	22.27	23.32
	8H	23.92	24.43	24.77	25.29	26.36	20.96	21.48	21.82	22.34	23.40
	12H	23.94	24.40	24.81	25.28	26.35	20.99	21.45	21.86	22.34	23.40
8H	4H	23.54	24.06	24.40	24.92	25.98	20.78	21.29	21.63	22.15	23.22
	6H	23.99	24.41	24.87	25.31	26.38	21.29	21.71	22.17	22.62	23.68
	8H	24.13	24.51	25.02	25.41	26.49	21.45	21.83	22.35	22.73	23.81
	12H	24.20	24.54	25.10	25.43	26.56	21.52	21.85	22.42	22.74	23.88
12H	4H	23.51	23.97	24.38	24.86	25.92	20.80	21.26	21.67	22.15	23.21
	6H	23.98	24.35	24.87	25.25	26.33	21.35	21.73	22.25	22.63	23.71
	8H	24.15	24.48	25.04	25.37	26.50	21.55	21.88	22.44	22.77	23.90