

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: P855347

Luminaire Tested: SQ2-PP3-050U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855347
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-050U-100D-840-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

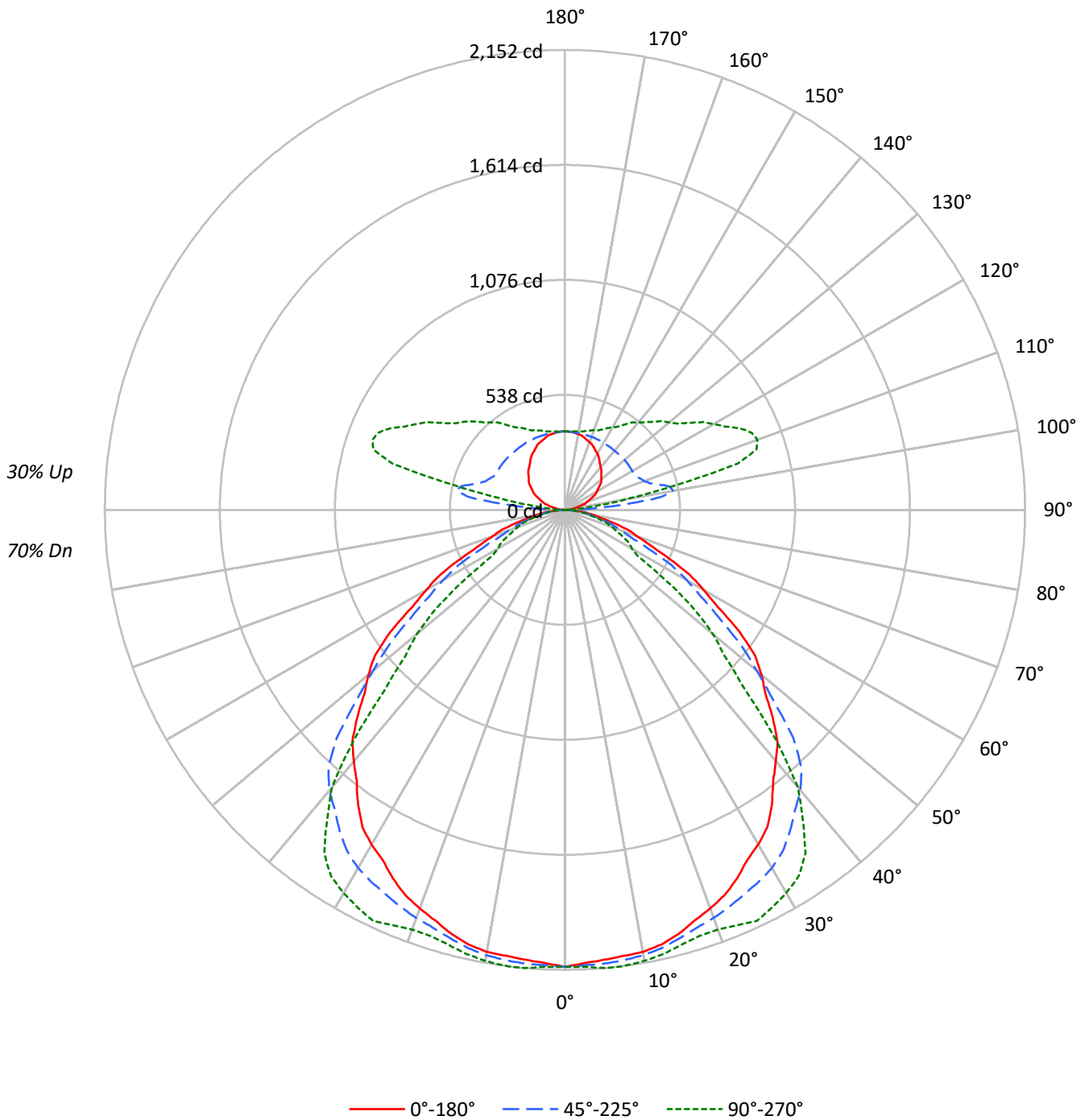
Lumens per Lamp: N/A
Luminaire Lumens: 7665.9 lumens
Efficiency: N/A
Efficacy: 146.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P855347

CATALOG NUMBER: SQ2-PP3-050U-100D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855347

CATALOG NUMBER: SQ2-PP3-050U-100D-840-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	112	112	112	112	106	106	106	106	95	95	95	84	84	84	75	75	75	75	75	75	70	
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	65	65	65	61	
2	94	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	56	56	56	56	52	
3	87	77	70	64	82	74	67	62	66	61	57	60	56	52	54	51	48	48	48	48	45	
4	80	69	61	55	75	66	59	53	59	54	49	54	49	45	48	45	42	42	42	42	39	
5	73	62	54	48	69	59	52	46	54	47	43	49	44	40	44	40	37	37	37	37	34	
6	68	56	47	42	64	53	46	40	48	42	38	44	39	35	40	36	33	33	33	33	30	
7	63	50	42	37	59	48	41	36	44	38	33	40	35	31	37	32	29	29	29	29	27	
8	58	46	38	33	55	44	37	32	40	34	30	37	32	28	34	29	26	26	26	26	24	
9	54	42	34	29	52	40	33	29	37	31	27	34	29	25	31	27	24	24	24	24	22	
10	51	39	31	26	48	37	30	26	34	28	24	31	26	23	29	25	21	21	21	21	20	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34525	34525	34525
5°	34255	34546	34877
10°	34428	34687	35131
15°	34345	34684	35214
20°	34099	34916	35924
25°	33905	35356	37812
30°	33715	36074	38602
35°	33236	36177	38672
40°	32349	36113	35732
45°	31383	34477	27202
50°	30147	29411	22654
55°	28059	24752	16287
60°	24161	21241	11677
65°	20378	16409	11488
70°	16966	12911	10990
75°	14379	11135	10293
80°	12190	9670	9242
85°	9633	7966	5039

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 34477 cd/sqm



TEST NUMBER: P855347

CATALOG NUMBER: SQ2-PP3-050U-100D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.6	2.7
10°-20°	589.3	7.7
20°-30°	923.2	12.0
30°-40°	1138.8	14.9
40°-50°	1072.2	14.0
50°-60°	759.2	9.9
60°-70°	432.6	5.6
70°-80°	214.0	2.8
80°-90°	52.8	0.7
90°-100°	146.2	1.9
100°-110°	463.9	6.1
110°-120°	454.9	5.9
120°-130°	370.1	4.8
130°-140°	301.8	3.9
140°-150°	235.3	3.1
150°-160°	169.5	2.2
160°-170°	103.6	1.4
170°-180°	35.0	0.5
0°-30°	1716.0	22.4
0°-40°	2854.8	37.2
0°-60°	4686.2	61.1
0°-90°	5385.6	70.3
90°-120°	1065.0	13.9
90°-150°	1972.3	25.7
90°-180°	2280.0	29.7
0°-180°	7665.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2138	2138	2138	2138	2138	
5°	2114	2151	2132	2136	2152	201
15°	2055	2083	2075	2096	2107	579
25°	1903	1952	1985	2065	2122	877
35°	1686	1733	1835	1940	1962	1052
45°	1374	1478	1510	1280	1191	1058
55°	997	1057	879	663	579	879
65°	533	562	430	303	301	536
75°	230	255	178	167	165	250
85°	52	48	43	34	27	61
90°	0	1	4	4	4	3
95°	20	59	266	98	64	23
105°	81	114	457	871	835	85
115°	144	171	370	768	903	142
125°	200	224	364	602	709	178
135°	241	265	361	518	583	186
145°	282	303	361	447	486	176
155°	321	332	363	399	414	148
165°	350	353	364	378	381	99
175°	366	365	366	368	367	35
180°	367	367	367	367	367	



TEST NUMBER: P855347

CATALOG NUMBER: SQ2-PP3-050U-100D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2138.3	2138.3	2138.3	2138.3	2138.3
2.5°	2122.1	2152.1	2132.9	2136.5	2140.1
5°	2113.5	2151.0	2131.5	2136.4	2151.9
7.5°	2105.3	2143.8	2124.8	2132.9	2151.9
10°	2099.9	2133.0	2115.7	2127.3	2142.8
12.5°	2083.6	2115.0	2099.5	2114.6	2128.4
15°	2054.7	2083.4	2075.0	2095.6	2106.7
17.5°	2015.3	2050.3	2050.2	2079.3	2090.8
20°	1984.6	2026.6	2032.1	2068.7	2090.8
22.5°	1952.0	2001.1	2010.3	2065.4	2103.5
25°	1903.2	1951.8	1984.6	2065.0	2122.5
27.5°	1846.2	1894.5	1962.0	2052.0	2097.6
30°	1808.4	1854.7	1934.9	2028.5	2070.5
32.5°	1761.3	1809.5	1895.1	1995.9	2034.3
35°	1686.2	1732.6	1835.4	1939.9	1962.0
37.5°	1599.9	1652.5	1767.6	1826.0	1827.2
40°	1534.8	1603.4	1713.4	1724.0	1695.3
42.5°	1471.6	1559.4	1637.4	1589.7	1462.0
45°	1374.4	1478.2	1509.9	1279.6	1191.3
47.5°	1270.8	1373.3	1322.7	1073.2	1012.2
50°	1200.2	1297.6	1170.9	959.4	901.9
52.5°	1120.6	1207.4	1035.2	850.2	762.6
55°	996.8	1056.6	879.3	662.6	578.6
57.5°	847.6	889.7	751.8	497.4	403.2
60°	748.2	781.3	657.8	408.1	361.6
62.5°	657.8	687.4	560.1	354.5	338.2
65°	533.4	562.2	429.5	302.9	300.7
67.5°	424.6	455.9	329.6	264.4	261.7
70°	359.4	392.5	273.5	237.3	232.8
72.5°	305.1	336.6	231.9	208.4	205.7
75°	230.5	254.9	178.5	167.2	165.0
77.5°	167.2	182.7	132.9	127.0	124.8
80°	131.1	137.8	104.0	101.6	99.4
82.5°	98.6	96.4	78.7	76.3	72.4
85°	52.0	47.5	43.0	33.8	27.2
87.5°	16.3	16.5	7.9	6.1	6.1
90°	0.0	1.2	3.5	3.5	3.5
92.5°	6.4	25.6	82.0	27.3	19.1
95°	19.6	59.2	265.6	98.5	63.5
97.5°	36.5	76.7	449.8	281.1	172.5
100°	48.5	86.9	512.7	467.4	303.7
102.5°	61.4	98.0	501.6	686.4	525.4
105°	80.9	113.6	457.3	871.0	834.9
107.5°	100.2	130.5	415.0	890.2	939.1
110°	113.2	142.5	393.8	868.1	958.4



TEST NUMBER: P855347

CATALOG NUMBER: SQ2-PP3-050U-100D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	126.1	153.6	381.8	829.9	944.6
115°	144.4	171.4	369.5	767.5	903.1
117.5°	162.1	187.9	364.7	707.5	844.1
120°	173.2	198.0	363.7	670.5	802.6
122.5°	184.2	208.3	363.7	640.7	763.8
125°	199.7	223.5	363.7	601.8	709.0
127.5°	213.4	236.2	363.7	571.6	663.1
130°	221.7	245.4	363.7	553.8	636.3
132.5°	230.1	253.7	362.8	539.8	614.0
135°	241.4	265.0	361.4	517.7	583.2
137.5°	252.4	277.2	361.2	496.5	555.0
140°	259.8	284.7	360.3	481.5	534.7
142.5°	269.1	293.0	361.2	466.7	516.2
145°	281.8	303.2	361.4	446.6	486.2
147.5°	294.5	312.8	361.6	428.9	461.3
150°	303.7	318.4	362.6	418.6	444.6
152.5°	311.0	324.0	362.6	410.2	431.7
155°	321.1	332.4	362.6	398.8	414.5
157.5°	331.7	339.4	363.7	391.7	402.5
160°	337.2	343.9	363.7	387.0	396.1
162.5°	342.7	347.8	363.7	383.3	389.6
165°	349.9	353.2	363.7	377.7	381.1
167.5°	356.6	357.5	364.9	373.7	376.7
170°	360.3	360.3	364.9	371.9	373.0
172.5°	362.1	363.0	364.9	370.0	370.2
175°	366.1	364.9	366.1	368.4	367.2
177.5°	367.2	366.3	366.3	368.2	366.3
180°	367.2	367.2	367.2	367.2	367.2



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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	21.56	22.59	22.33	23.37	24.32	17.95	18.98	18.72	19.77	20.72
	3H	22.67	23.59	23.45	24.38	25.36	19.07	19.99	19.86	20.79	21.77
	4H	23.02	23.88	23.82	24.69	25.68	19.54	20.41	20.34	21.21	22.21
	6H	23.24	24.04	24.05	24.85	25.86	19.90	20.69	20.71	21.51	22.51
	8H	23.30	24.05	24.12	24.88	25.89	19.99	20.74	20.81	21.58	22.58
	12H	23.31	24.04	24.14	24.86	25.89	20.01	20.73	20.84	21.55	22.59
4H	2H	21.69	22.55	22.49	23.36	24.35	18.69	19.55	19.49	20.36	21.35
	3H	23.01	23.73	23.83	24.57	25.58	19.96	20.67	20.77	21.51	22.52
	4H	23.49	24.14	24.32	24.98	26.02	20.52	21.17	21.35	22.00	23.04
	6H	23.84	24.40	24.69	25.26	26.30	20.97	21.53	21.81	22.39	23.43
	8H	23.94	24.46	24.79	25.32	26.37	21.09	21.61	21.94	22.47	23.53
	12H	23.98	24.45	24.85	25.33	26.39	21.13	21.60	22.00	22.47	23.53
8H	4H	23.52	24.05	24.37	24.90	25.96	20.80	21.33	21.65	22.18	23.24
	6H	23.96	24.39	24.84	25.29	26.35	21.35	21.79	22.23	22.68	23.74
	8H	24.12	24.50	25.01	25.39	26.47	21.54	21.92	22.43	22.82	23.89
	12H	24.21	24.55	25.10	25.43	26.56	21.62	21.96	22.51	22.84	23.97
12H	4H	23.49	23.96	24.36	24.84	25.90	20.82	21.29	21.69	22.16	23.23
	6H	23.95	24.33	24.84	25.23	26.30	21.41	21.79	22.29	22.68	23.76
	8H	24.13	24.47	25.02	25.35	26.48	21.62	21.96	22.51	22.85	23.97