

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: P853590

Luminaire Tested: SQ2-BBN-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853590
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-050U-100D-930-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

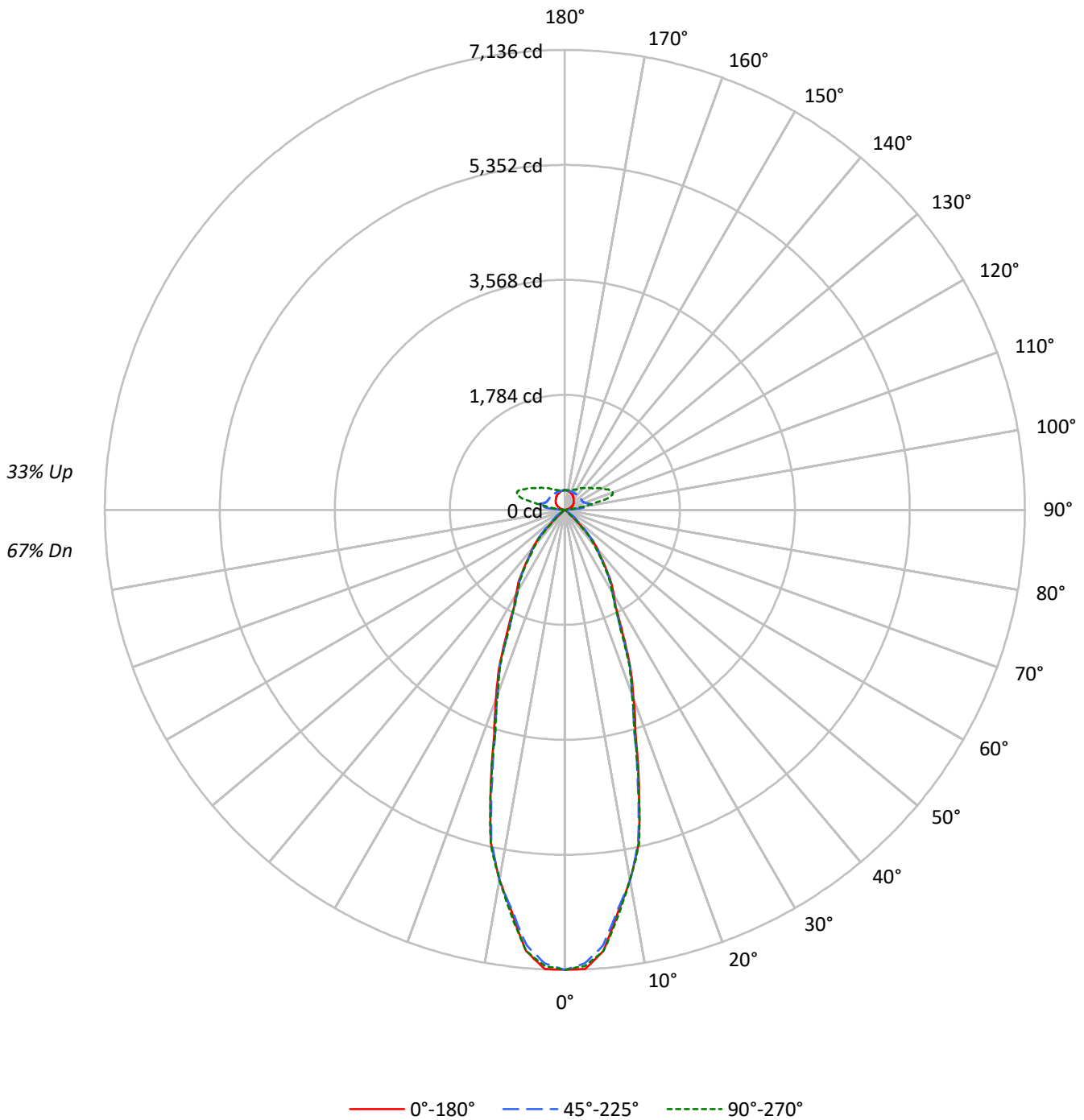
Lumens per Lamp: N/A
Luminaire Lumens: 5739.7 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.9
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: P853590

CATALOG NUMBER: SQ2-BBN-050U-100D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853590

CATALOG NUMBER: SQ2-BBN-050U-100D-930-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	0
RCR																		
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	105	102	99	97	99	96	94	92	86	85	83	77	76	75	69	68	67	63
2	99	93	89	85	93	89	85	82	80	78	75	72	70	69	65	64	63	59
3	93	86	81	76	88	82	77	74	75	71	68	68	66	63	62	60	58	55
4	88	80	74	69	83	76	71	67	70	66	63	64	61	59	59	56	55	52
5	83	74	68	63	79	71	66	61	65	61	58	60	57	54	56	53	51	49
6	78	69	63	58	74	66	61	57	61	57	54	57	54	51	53	50	48	46
7	74	64	58	54	71	62	57	53	58	53	50	54	50	48	50	47	45	43
8	70	60	54	50	67	58	53	49	55	50	47	51	47	45	48	45	43	41
9	67	57	51	47	64	55	50	46	52	47	44	49	45	42	45	43	40	39
10	63	54	48	44	61	52	47	43	49	45	42	46	43	40	43	41	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	115217	115217	115217
5°	111363	109987	111425
10°	95573	95636	95573
15°	74183	73000	74011
20°	53539	52434	52390
25°	37962	36449	36519
30°	28243	27524	27261
35°	21977	21419	20962
40°	16263	15856	14853
45°	8309	10188	6695
50°	1809	5622	1324
55°	507	2280	397
60°	84	455	42
65°	0	50	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10188 cd/sqm



TEST NUMBER: P853590

CATALOG NUMBER: SQ2-BBN-050U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	617.1	10.8
10°-20°	1216.5	21.2
20°-30°	981.4	17.1
30°-40°	681.7	11.9
40°-50°	314.9	5.5
50°-60°	44.2	0.8
60°-70°	1.5	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	120.7	2.1
100°-110°	382.8	6.7
110°-120°	375.4	6.5
120°-130°	305.5	5.3
130°-140°	249.1	4.3
140°-150°	194.2	3.4
150°-160°	139.9	2.4
160°-170°	85.5	1.5
170°-180°	28.9	0.5
0°-30°	2814.9	49.0
0°-40°	3496.7	60.9
0°-60°	3855.9	67.2
0°-90°	3857.9	67.2
90°-120°	879.0	15.3
90°-150°	1627.7	28.4
90°-180°	1882.0	32.8
0°-180°	5739.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7136	7136	7136	7136	7136	
5°	6871	6835	6786	6870	6875	617
15°	4438	4494	4367	4429	4428	1222
25°	2131	2083	2046	2076	2050	998
35°	1115	1115	1087	1067	1064	698
45°	364	434	446	405	293	294
55°	18	28	81	23	14	23
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	1
95°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	



TEST NUMBER: P853590

CATALOG NUMBER: SQ2-BBN-050U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7136.0	7136.0	7136.0	7136.0	7136.0
2.5°	7131.9	7105.7	7043.4	7099.6	7082.5
5°	6871.1	6834.6	6786.2	6869.9	6874.9
7.5°	6295.4	6307.3	6262.3	6354.6	6344.8
10°	5829.4	5838.2	5833.3	5863.3	5829.4
12.5°	5289.3	5324.2	5258.2	5304.8	5319.1
15°	4438.0	4494.5	4367.2	4428.9	4427.7
17.5°	3639.6	3633.8	3568.1	3579.6	3575.8
20°	3116.0	3107.2	3051.7	3042.8	3049.1
22.5°	2667.4	2652.6	2632.9	2610.8	2619.0
25°	2130.9	2083.1	2046.0	2076.3	2049.9
27.5°	1710.4	1709.6	1679.0	1682.4	1687.5
30°	1514.9	1506.1	1476.3	1477.3	1462.2
32.5°	1341.0	1347.3	1310.7	1303.4	1288.3
35°	1115.0	1115.0	1086.7	1067.3	1063.5
37.5°	905.3	903.1	883.0	855.5	845.7
40°	771.6	765.3	752.3	718.6	704.7
42.5°	619.3	636.2	623.7	589.8	568.9
45°	363.9	434.4	446.2	405.1	293.2
47.5°	156.4	233.8	297.8	194.1	101.1
50°	72.0	132.4	223.8	95.5	52.7
52.5°	42.2	72.4	166.2	55.8	33.2
55°	18.0	28.1	81.0	22.9	14.1
57.5°	6.7	12.2	30.6	9.9	5.4
60°	2.6	5.1	14.1	3.8	1.3
62.5°	0.5	2.0	6.9	1.8	0.3
65°	0.0	0.0	1.3	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.6	0.6
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



TEST NUMBER: P853590

CATALOG NUMBER: SQ2-BBN-050U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



TEST NUMBER: P853590

CATALOG NUMBER: SQ2-BBN-050U-100D-930-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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00