

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: P853580

Luminaire Tested: SQ2-BBN-025U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853580
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-025U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

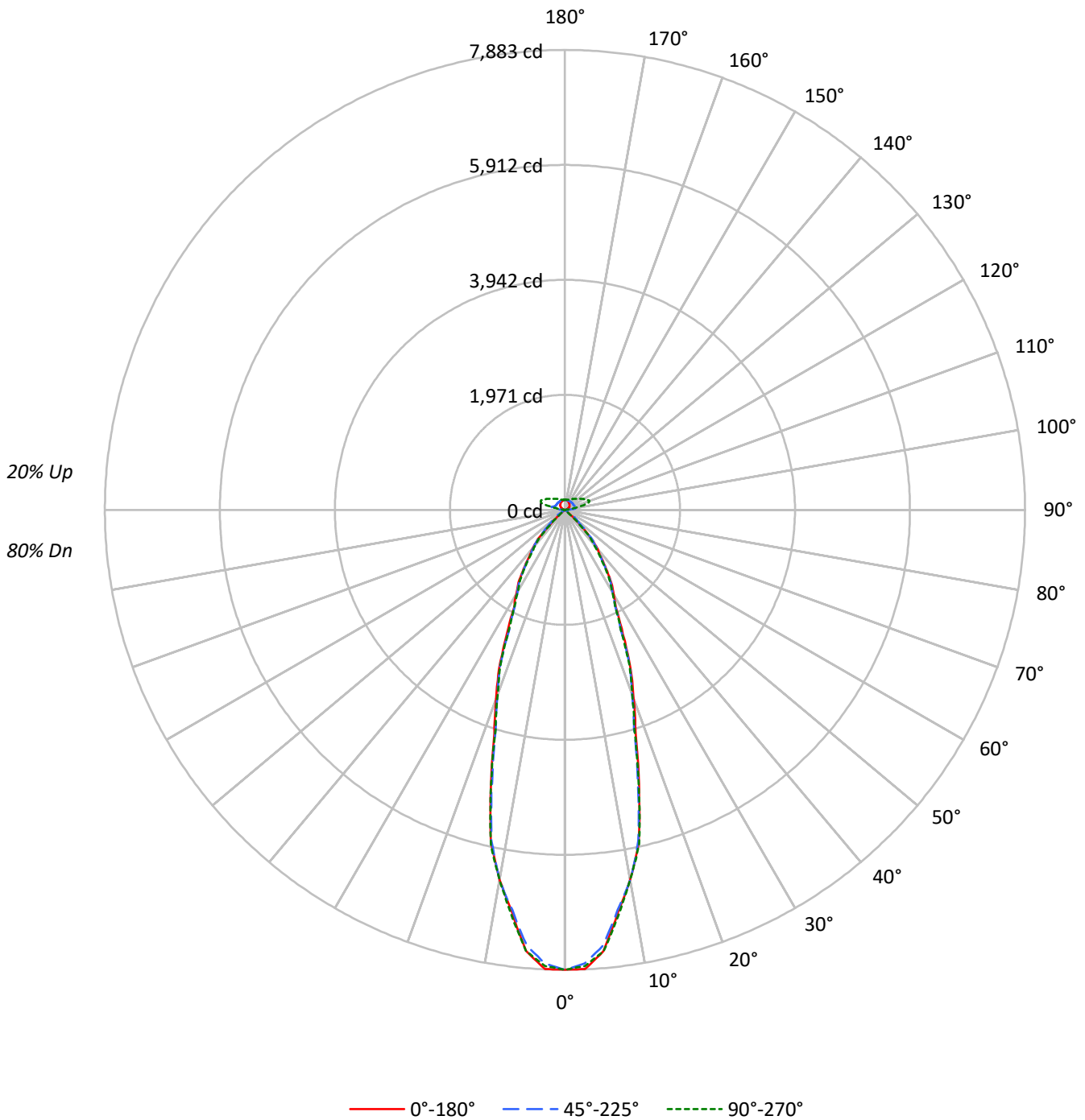
Lumens per Lamp: N/A
Luminaire Lumens: 5322.7 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.6
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: P853580

CATALOG NUMBER: SQ2-BBN-025U-100D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853580

CATALOG NUMBER: SQ2-BBN-025U-100D-940-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
RCR																				
0	114	114	114	114	109	109	109	109	100	100	100	92	92	92	84	84	84	80	80	80
1	108	105	103	100	104	101	99	97	94	92	90	87	85	84	80	79	78	75	75	75
2	103	97	93	90	98	94	90	87	88	85	82	82	80	78	76	75	73	71	71	71
3	97	90	85	81	93	88	83	79	82	79	76	77	74	72	72	70	68	66	66	66
4	92	84	79	74	89	82	77	73	77	73	70	73	69	67	69	66	64	62	62	62
5	87	79	73	68	84	76	71	67	72	68	65	69	65	62	65	62	60	58	58	58
6	83	74	68	63	80	72	66	62	68	64	60	65	61	58	62	59	57	55	55	55
7	78	69	63	59	76	68	62	58	64	60	56	62	58	55	59	56	53	52	52	52
8	75	65	59	55	72	64	58	54	61	56	53	59	55	52	56	53	50	49	49	49
9	71	62	56	52	69	60	55	51	58	53	50	56	52	49	54	50	48	46	46	46
10	68	58	53	49	66	57	52	48	55	51	47	53	49	46	51	48	45	44	44	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	127284	127284	127284
5°	123028	121508	123096
10°	105583	105654	105583
15°	81952	80647	81763
20°	59146	57926	57878
25°	41938	40267	40344
30°	31202	30408	30115
35°	24277	23662	23158
40°	17966	17517	16408
45°	9181	11257	7396
50°	1999	6209	1462
55°	560	2519	439
60°	90	504	45
65°	0	53	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: 11257 cd/sqm



TEST NUMBER: P853580

CATALOG NUMBER: SQ2-BBN-025U-100D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	681.7	12.8
10°-20°	1344.0	25.2
20°-30°	1084.1	20.4
30°-40°	753.1	14.1
40°-50°	347.9	6.5
50°-60°	48.9	0.9
60°-70°	1.7	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	69.2	1.3
100°-110°	215.2	4.0
110°-120°	210.5	4.0
120°-130°	171.8	3.2
130°-140°	140.6	2.6
140°-150°	109.7	2.1
150°-160°	79.2	1.5
160°-170°	48.4	0.9
170°-180°	16.3	0.3
0°-30°	3109.8	58.4
0°-40°	3862.9	72.6
0°-60°	4259.7	80.0
0°-90°	4261.9	80.1
90°-120°	494.8	9.3
90°-150°	917.0	17.2
90°-180°	1061.0	19.9
0°-180°	5322.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7883	7883	7883	7883	7883	
5°	7591	7550	7497	7590	7595	682
15°	4903	4965	4825	4893	4892	1350
25°	2354	2301	2260	2294	2265	1102
35°	1232	1232	1200	1179	1175	771
45°	402	480	493	448	324	325
55°	20	31	90	25	16	25
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	0
95°	9	28	127	47	30	11
105°	38	53	212	404	386	40
115°	67	79	172	355	415	66
125°	93	104	170	279	327	83
135°	112	124	169	241	271	87
145°	131	141	169	208	226	82
155°	150	155	170	187	193	69
165°	165	166	171	176	178	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



TEST NUMBER: P853580

CATALOG NUMBER: SQ2-BBN-025U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7883.4	7883.4	7883.4	7883.4	7883.4
2.5°	7878.9	7850.0	7781.1	7843.2	7824.3
5°	7590.8	7550.5	7497.0	7589.5	7595.0
7.5°	6954.9	6967.9	6918.2	7020.3	7009.4
10°	6440.0	6449.7	6444.3	6477.5	6440.0
12.5°	5843.3	5881.9	5808.9	5860.4	5876.3
15°	4902.8	4965.3	4824.7	4892.8	4891.5
17.5°	4020.9	4014.5	3941.9	3954.6	3950.4
20°	3442.3	3432.6	3371.3	3361.5	3368.5
22.5°	2946.8	2930.4	2908.7	2884.2	2893.4
25°	2354.1	2301.3	2260.3	2293.8	2264.6
27.5°	1889.5	1888.7	1854.9	1858.7	1864.2
30°	1673.6	1663.9	1631.0	1632.0	1615.3
32.5°	1481.5	1488.4	1448.0	1439.9	1423.3
35°	1231.7	1231.7	1200.5	1179.1	1174.9
37.5°	1000.2	997.7	975.4	945.1	934.2
40°	852.4	845.5	831.1	793.8	778.5
42.5°	684.2	702.8	689.0	651.6	628.5
45°	402.1	479.8	493.0	447.6	323.9
47.5°	172.8	258.3	329.0	214.5	111.7
50°	79.6	146.2	247.2	105.5	58.2
52.5°	46.6	79.9	183.6	61.7	36.7
55°	19.9	31.0	89.5	25.4	15.6
57.5°	7.4	13.5	33.8	11.0	6.0
60°	2.8	5.6	15.6	4.2	1.4
62.5°	0.6	2.2	7.7	2.0	0.3
65°	0.0	0.0	1.4	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	1.0	3.1	3.1	3.1
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.4	27.9	126.9	46.8	30.4
97.5°	17.2	36.3	210.2	130.8	82.4
100°	23.1	40.5	237.0	221.7	147.9
102.5°	28.9	45.6	232.0	316.6	248.5
105°	37.8	53.1	211.8	404.4	385.9
107.5°	46.6	60.9	192.5	411.1	431.4
110°	52.4	66.8	182.5	401.5	441.5



TEST NUMBER: P853580

CATALOG NUMBER: SQ2-BBN-025U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.3	71.8	177.4	384.1	434.8
115°	67.1	79.4	172.0	354.8	415.3
117.5°	75.7	87.0	169.7	326.7	388.7
120°	80.8	92.0	168.8	310.7	370.2
122.5°	85.8	97.1	169.7	297.2	351.7
125°	93.3	103.6	169.9	279.0	327.2
127.5°	99.4	109.9	169.9	265.4	306.4
130°	102.8	114.1	169.9	257.8	294.7
132.5°	107.0	118.2	169.1	251.0	285.5
135°	112.2	124.5	168.8	240.8	270.6
137.5°	118.3	129.6	168.8	230.7	257.8
140°	121.7	132.9	168.8	223.9	248.5
142.5°	125.8	136.3	168.8	217.2	239.3
145°	131.1	141.3	168.8	208.1	226.5
147.5°	137.4	146.2	169.9	199.6	214.1
150°	141.6	148.8	169.9	195.3	206.6
152.5°	144.9	151.3	169.9	191.1	200.7
155°	150.0	155.1	169.9	186.8	193.0
157.5°	155.0	158.9	169.9	183.0	186.9
160°	158.4	161.4	169.9	180.5	183.5
162.5°	160.9	163.1	169.9	178.8	181.0
165°	164.7	165.7	170.9	176.2	178.3
167.5°	167.0	167.2	169.9	174.7	175.8
170°	167.8	168.8	169.9	173.1	174.1
172.5°	169.5	169.7	170.7	172.2	172.4
175°	170.9	170.9	170.9	172.0	170.9
177.5°	170.9	170.9	170.9	170.9	170.9
180°	170.9	170.9	170.9	170.9	170.9



TEST NUMBER: P853580

CATALOG NUMBER: SQ2-BBN-025U-100D-940-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