

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: P853574

Luminaire Tested: SQ2-BBN-025U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853574
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-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

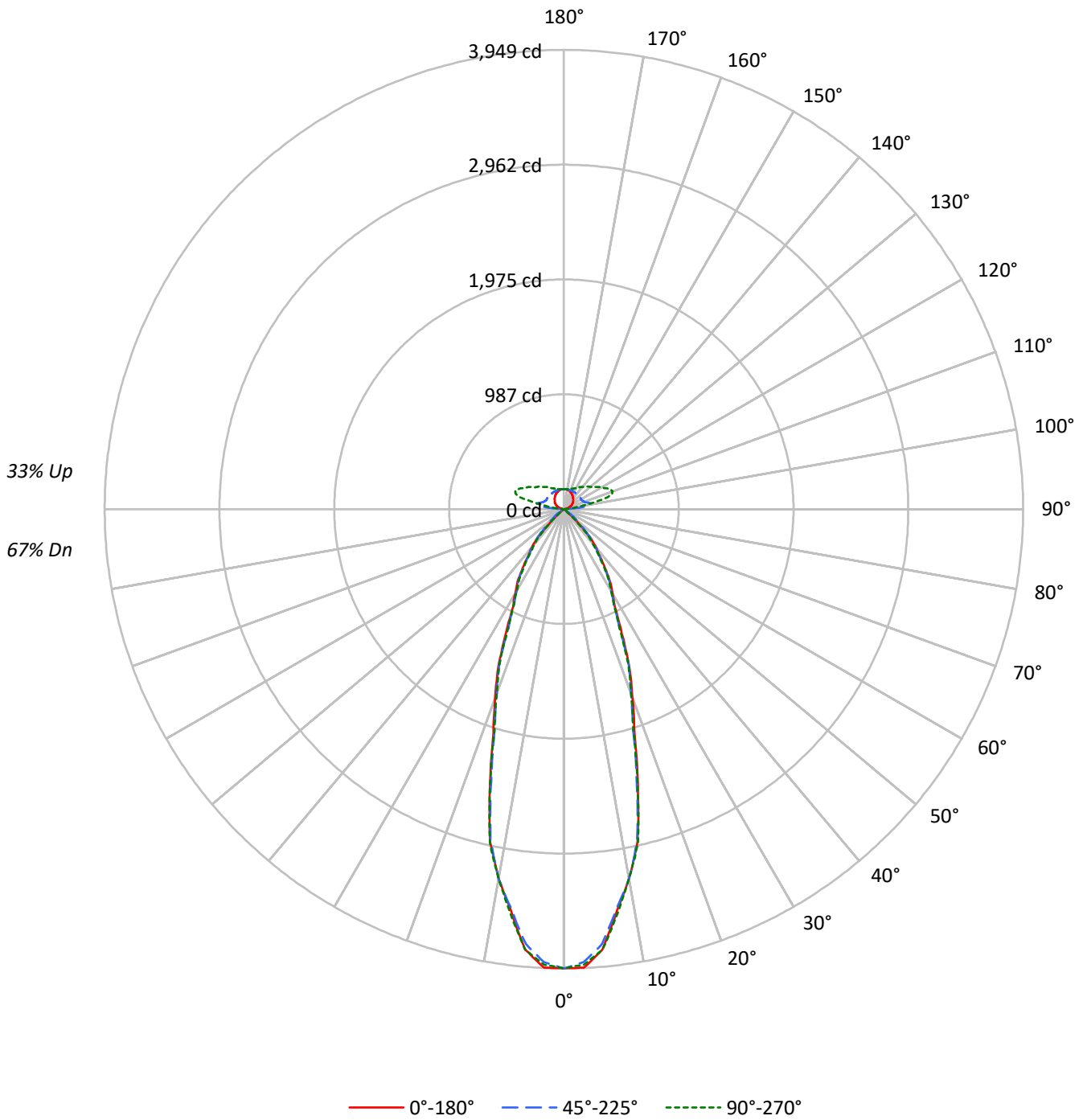
Lumens per Lamp: N/A
Luminaire Lumens: 3203.8 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.5
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: P853574

CATALOG NUMBER: SQ2-BBN-025U-050D-940-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
RCR																				
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	71	71	71	67		
1	105	102	99	96	99	96	94	92	86	84	83	77	76	75	68	67	67	63		
2	99	93	89	85	93	89	85	82	80	77	75	72	70	68	65	63	62	59		
3	93	86	80	76	88	82	77	73	75	71	68	68	65	63	61	60	58	55		
4	87	79	73	69	83	76	71	67	70	66	62	64	61	58	58	56	54	51		
5	82	74	68	63	78	71	65	61	65	61	58	60	57	54	55	53	51	48		
6	78	69	62	58	74	66	60	56	61	57	53	57	53	51	52	50	48	45		
7	74	64	58	54	70	62	56	52	58	53	50	54	50	47	50	47	45	43		
8	70	60	54	50	67	58	53	49	54	50	47	51	47	44	47	45	42	41		
9	66	57	51	47	64	55	49	46	51	47	44	48	45	42	45	42	40	38		
10	63	53	48	44	61	52	46	43	49	44	41	46	42	40	43	40	38	37		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	63760	63760	63760
5°	61627	60866	61661
10°	52888	52924	52888
15°	41051	40398	40956
20°	29627	29017	28991
25°	21007	20170	20209
30°	15629	15232	15086
35°	12161	11854	11600
40°	9000	8774	8220
45°	4599	5638	3706
50°	1002	3110	733
55°	281	1261	220
60°	45	252	23
65°	0	27	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: 5638 cd/sqm



TEST NUMBER: P853574

CATALOG NUMBER: SQ2-BBN-025U-050D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.5	10.7
10°-20°	673.2	21.0
20°-30°	543.1	17.0
30°-40°	377.3	11.8
40°-50°	174.3	5.4
50°-60°	24.5	0.8
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	69.7	2.2
100°-110°	216.8	6.8
110°-120°	212.1	6.6
120°-130°	173.1	5.4
130°-140°	141.6	4.4
140°-150°	110.5	3.5
150°-160°	79.8	2.5
160°-170°	48.8	1.5
170°-180°	16.4	0.5
0°-30°	1557.8	48.6
0°-40°	1935.0	60.4
0°-60°	2133.8	66.6
0°-90°	2135.1	66.6
90°-120°	498.5	15.6
90°-150°	923.8	28.8
90°-180°	1069.0	33.4
0°-180°	3203.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3949	3949	3949	3949	3949	
5°	3802	3782	3755	3802	3804	342
15°	2456	2487	2417	2451	2450	676
25°	1179	1153	1132	1149	1134	552
35°	617	617	601	591	588	386
45°	201	240	247	224	162	163
55°	10	16	45	13	8	13
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°	10	28	128	47	31	11
105°	38	54	213	407	389	40
115°	68	80	173	357	418	67
125°	94	104	171	281	330	83
135°	113	125	170	243	273	87
145°	132	142	170	210	228	83
155°	151	156	171	188	194	70
165°	166	167	172	178	180	47
175°	172	172	172	173	172	16
180°	172	172	172	172	172	



TEST NUMBER: P853574

CATALOG NUMBER: SQ2-BBN-025U-050D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3949.0	3949.0	3949.0	3949.0	3949.0
2.5°	3946.7	3932.2	3897.7	3928.8	3919.4
5°	3802.4	3782.2	3755.4	3801.7	3804.5
7.5°	3483.8	3490.4	3465.5	3516.6	3511.2
10°	3225.9	3230.8	3228.1	3244.7	3225.9
12.5°	2927.0	2946.4	2909.8	2935.6	2943.6
15°	2455.9	2487.2	2416.8	2450.9	2450.2
17.5°	2014.1	2010.9	1974.6	1980.9	1978.8
20°	1724.3	1719.5	1688.8	1683.9	1687.3
22.5°	1476.1	1467.9	1457.0	1444.8	1449.4
25°	1179.2	1152.8	1132.2	1149.0	1134.4
27.5°	946.5	946.1	929.1	931.1	933.8
30°	838.3	833.5	817.0	817.5	809.2
32.5°	742.1	745.6	725.3	721.3	712.9
35°	617.0	617.0	601.4	590.6	588.5
37.5°	501.0	499.8	488.6	473.4	468.0
40°	427.0	423.5	416.3	397.6	390.0
42.5°	342.7	352.1	345.2	326.4	314.8
45°	201.4	240.4	246.9	224.2	162.3
47.5°	86.5	129.4	164.8	107.4	55.9
50°	39.9	73.3	123.8	52.8	29.2
52.5°	23.3	40.0	91.9	30.9	18.4
55°	10.0	15.5	44.8	12.7	7.8
57.5°	3.7	6.8	16.9	5.5	3.0
60°	1.4	2.8	7.8	2.1	0.7
62.5°	0.3	1.1	3.8	1.0	0.1
65°	0.0	0.0	0.7	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	3.2	3.2	3.2
92.5°	3.4	11.9	40.4	13.3	10.8
95°	9.5	28.1	127.8	47.2	30.6
97.5°	17.3	36.5	211.7	131.8	83.0
100°	23.2	40.8	238.8	223.3	149.0
102.5°	29.2	45.9	233.7	319.0	250.4
105°	38.0	53.5	213.4	407.4	388.8
107.5°	46.9	61.4	194.0	414.2	434.6
110°	52.8	67.3	183.8	404.5	444.8



TEST NUMBER: P853574

CATALOG NUMBER: SQ2-BBN-025U-050D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.7	72.4	178.8	387.0	438.0
115°	67.6	80.0	173.3	357.4	418.4
117.5°	76.3	87.6	170.9	329.1	391.5
120°	81.3	92.7	170.1	313.0	372.9
122.5°	86.4	97.8	170.9	299.4	354.3
125°	94.0	104.4	171.1	281.1	329.6
127.5°	100.2	110.7	171.1	267.4	308.7
130°	103.5	114.9	171.1	259.7	296.9
132.5°	107.8	119.1	170.3	252.9	287.6
135°	113.0	125.4	170.1	242.6	272.6
137.5°	119.2	130.5	170.1	232.4	259.7
140°	122.6	133.9	170.1	225.6	250.4
142.5°	126.8	137.3	170.1	218.8	241.1
145°	132.1	142.4	170.1	209.6	228.2
147.5°	138.4	147.3	171.1	201.1	215.7
150°	142.6	149.9	171.1	196.8	208.1
152.5°	146.0	152.4	171.1	192.5	202.2
155°	151.1	156.2	171.1	188.2	194.4
157.5°	156.1	160.1	171.1	184.3	188.3
160°	159.5	162.6	171.1	181.8	184.9
162.5°	162.1	164.3	171.1	180.1	182.3
165°	165.9	166.9	172.2	177.5	179.6
167.5°	168.2	168.4	171.1	176.0	177.1
170°	169.0	170.1	171.1	174.3	175.4
172.5°	170.7	170.9	172.0	173.5	173.7
175°	172.2	172.2	172.2	173.2	172.2
177.5°	172.2	172.2	172.2	172.2	172.2
180°	172.2	172.2	172.2	172.2	172.2



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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	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