

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: P853577

Luminaire Tested: SQ2-BBN-025U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853577
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-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

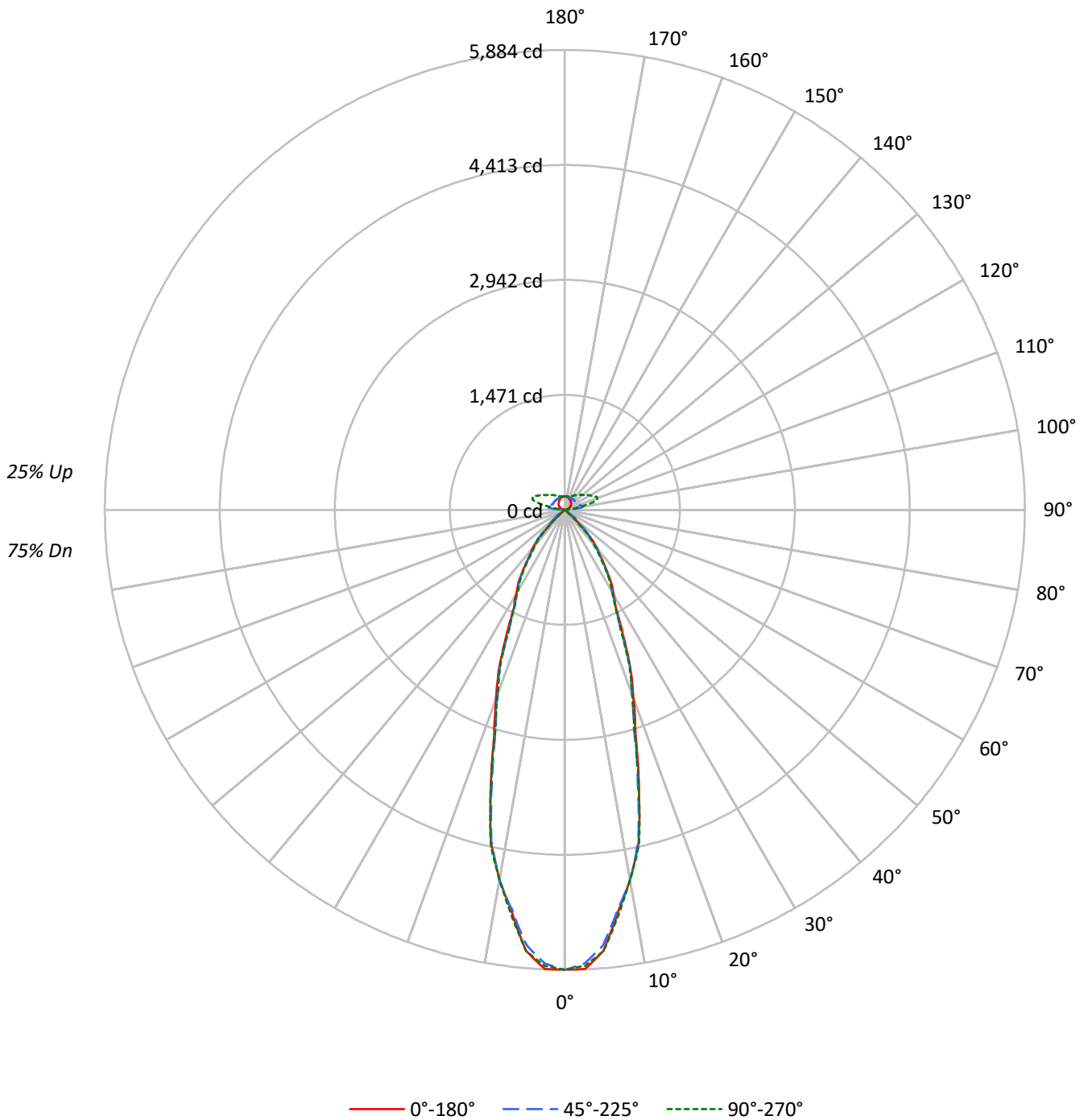
Lumens per Lamp: N/A
Luminaire Lumens: 4244.6 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 35
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: P853577

CATALOG NUMBER: SQ2-BBN-025U-075D-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	0
RCR																		
0	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	107	104	101	99	102	99	97	95	91	89	88	83	82	81	76	75	74	71
2	101	96	92	88	96	92	88	85	85	82	79	78	76	74	72	70	69	66
3	95	89	83	79	91	85	81	77	79	76	73	73	71	69	68	66	64	62
4	90	82	77	72	86	80	74	70	74	70	67	69	66	64	65	62	60	58
5	85	77	71	66	82	74	69	65	70	65	62	65	62	59	61	59	57	54
6	81	72	66	61	78	70	64	60	66	61	58	62	58	55	58	55	53	51
7	77	67	61	57	74	65	60	56	62	57	54	59	55	52	55	52	50	48
8	73	63	57	53	70	62	56	52	58	54	51	56	52	49	53	50	47	46
9	69	60	54	50	67	58	53	49	55	51	48	53	49	46	50	47	45	43
10	66	56	51	47	64	55	50	46	53	48	45	50	46	44	48	45	43	41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	95001	95001	95001
5°	91824	90689	91876
10°	78804	78856	78804
15°	61167	60192	61025
20°	44146	43233	43197
25°	31301	30054	30111
30°	23288	22695	22477
35°	18120	17661	17284
40°	13409	13074	12248
45°	6852	8401	5521
50°	1492	4634	1093
55°	417	1880	329
60°	68	378	36
65°	0	42	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: 8401 cd/sqm



TEST NUMBER: P853577

CATALOG NUMBER: SQ2-BBN-025U-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.8	12.0
10°-20°	1003.1	23.6
20°-30°	809.2	19.1
30°-40°	562.1	13.2
40°-50°	259.7	6.1
50°-60°	36.5	0.9
60°-70°	1.2	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	69.4	1.6
100°-110°	215.7	5.1
110°-120°	211.0	5.0
120°-130°	172.3	4.1
130°-140°	140.9	3.3
140°-150°	110.0	2.6
150°-160°	79.4	1.9
160°-170°	48.5	1.1
170°-180°	16.4	0.4
0°-30°	2321.0	54.7
0°-40°	2883.2	67.9
0°-60°	3179.3	74.9
0°-90°	3181.1	74.9
90°-120°	496.1	11.7
90°-150°	919.3	21.7
90°-180°	1064.0	25.1
0°-180°	4244.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5884	5884	5884	5884	5884	
5°	5666	5635	5596	5664	5669	509
15°	3659	3706	3601	3652	3651	1007
25°	1757	1718	1687	1712	1690	823
35°	919	919	896	880	877	575
45°	300	358	368	334	242	242
55°	15	23	67	19	12	19
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	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	356	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	209	227	83
155°	150	156	170	187	193	69
165°	165	166	171	177	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



TEST NUMBER: P853577

CATALOG NUMBER: SQ2-BBN-025U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5883.9	5883.9	5883.9	5883.9	5883.9
2.5°	5880.5	5859.0	5807.6	5853.9	5839.8
5°	5665.5	5635.4	5595.5	5664.5	5668.7
7.5°	5190.9	5200.6	5163.5	5239.7	5231.6
10°	4806.6	4813.9	4809.8	4834.6	4806.6
12.5°	4361.3	4390.1	4335.6	4374.0	4385.9
15°	3659.3	3706.0	3601.0	3651.9	3650.8
17.5°	3001.0	2996.3	2942.1	2951.5	2948.4
20°	2569.3	2562.0	2516.2	2508.9	2514.1
22.5°	2199.4	2187.2	2171.0	2152.7	2159.5
25°	1757.0	1717.6	1687.0	1712.0	1690.2
27.5°	1410.3	1409.7	1384.4	1387.3	1391.4
30°	1249.1	1241.8	1217.3	1218.1	1205.6
32.5°	1105.7	1110.9	1080.7	1074.7	1062.3
35°	919.3	919.3	896.0	880.0	876.9
37.5°	746.5	744.6	728.0	705.4	697.3
40°	636.2	631.0	620.3	592.5	581.1
42.5°	510.7	524.6	514.3	486.3	469.1
45°	300.1	358.1	367.9	334.0	241.8
47.5°	128.9	192.8	245.6	160.1	83.3
50°	59.4	109.1	184.5	78.7	43.5
52.5°	34.8	59.7	137.0	46.0	27.4
55°	14.8	23.1	66.8	18.9	11.7
57.5°	5.5	10.1	25.2	8.2	4.5
60°	2.1	4.2	11.7	3.1	1.1
62.5°	0.4	1.7	5.7	1.5	0.2
65°	0.0	0.0	1.1	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	11.8	40.2	13.2	10.7
95°	9.5	28.0	127.2	46.9	30.5
97.5°	17.2	36.4	210.7	131.2	82.6
100°	23.1	40.6	237.6	222.3	148.2
102.5°	29.0	45.7	232.6	317.4	249.2
105°	37.8	53.3	212.4	405.4	386.9
107.5°	46.7	61.1	193.0	412.2	432.5
110°	52.6	67.0	182.9	402.5	442.6



TEST NUMBER: P853577

CATALOG NUMBER: SQ2-BBN-025U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.5	72.0	177.9	385.1	435.9
115°	67.3	79.6	172.4	355.7	416.3
117.5°	75.9	87.2	170.1	327.5	389.6
120°	81.0	92.3	169.3	311.5	371.1
122.5°	86.0	97.3	170.1	297.9	352.6
125°	93.6	103.9	170.3	279.7	328.0
127.5°	99.7	110.2	170.3	266.1	307.2
130°	103.0	114.3	170.3	258.4	295.4
132.5°	107.2	118.5	169.5	251.6	286.2
135°	112.5	124.8	169.3	241.4	271.2
137.5°	118.6	129.9	169.3	231.3	258.4
140°	122.0	133.3	169.3	224.5	249.2
142.5°	126.2	136.6	169.3	217.7	239.9
145°	131.4	141.7	169.3	208.6	227.1
147.5°	137.7	146.6	170.3	200.1	214.7
150°	141.9	149.1	170.3	195.8	207.1
152.5°	145.3	151.7	170.3	191.6	201.2
155°	150.3	155.5	170.3	187.3	193.4
157.5°	155.4	159.3	170.3	183.4	187.4
160°	158.8	161.8	170.3	180.9	184.0
162.5°	161.3	163.5	170.3	179.2	181.5
165°	165.1	166.1	171.4	176.7	178.7
167.5°	167.4	167.6	170.3	175.2	176.2
170°	168.2	169.2	170.3	173.5	174.5
172.5°	169.9	170.1	171.2	172.6	172.8
175°	171.4	171.4	171.4	172.4	171.4
177.5°	171.4	171.4	171.4	171.4	171.4
180°	171.4	171.4	171.4	171.4	171.4



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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