

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: P853602

Luminaire Tested: SQ2-BBN-075U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853602
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-075U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

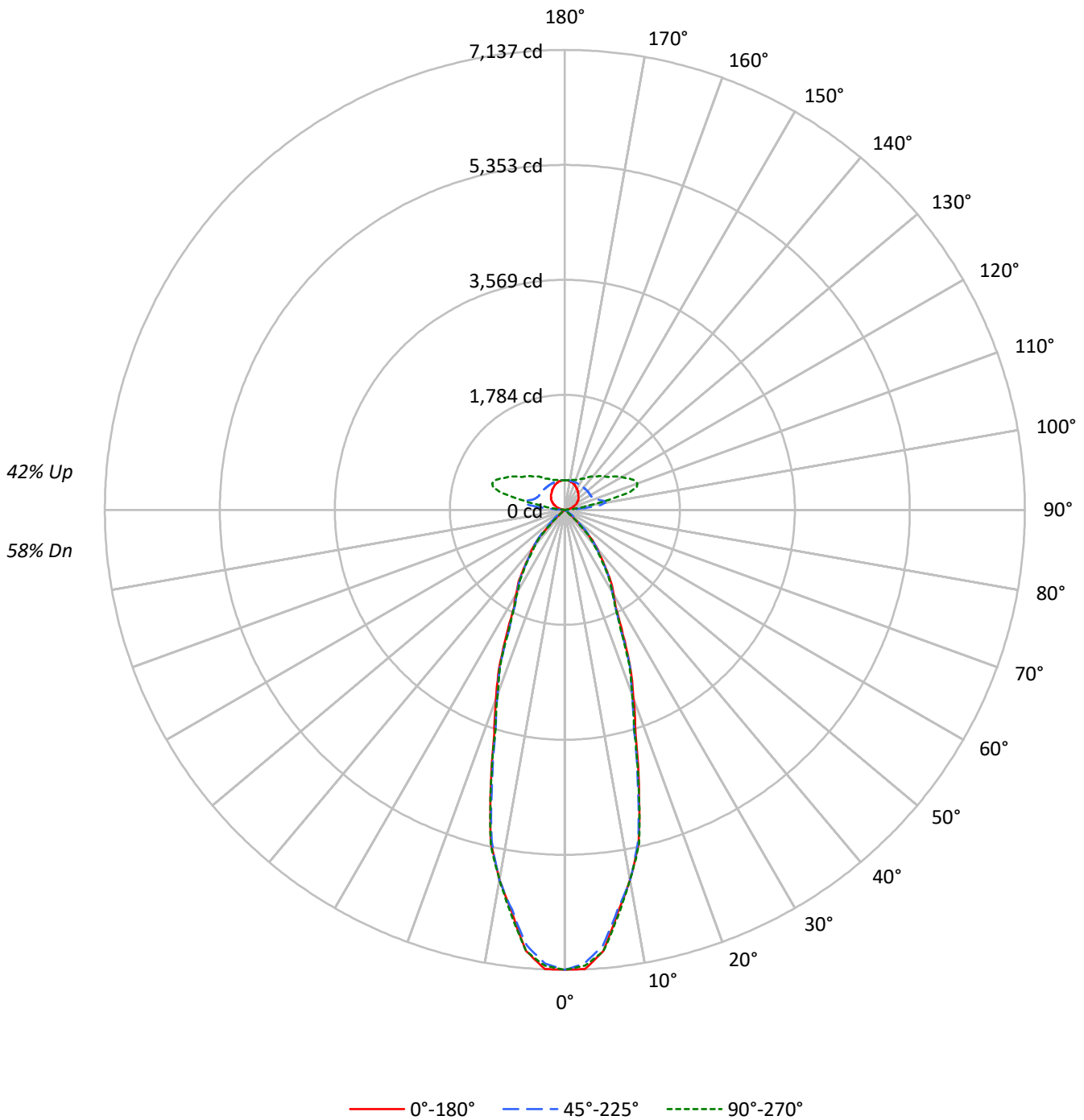
Lumens per Lamp: N/A
Luminaire Lumens: 6708.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 61.4
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

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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	109	109	109	109	101	101	101	101	88	88	88	75	75	75	63	63	63	58
1	102	99	96	94	95	93	90	88	81	79	78	70	69	68	60	59	59	54
2	96	90	86	82	90	85	81	78	75	72	70	66	64	62	57	56	55	51
3	90	83	77	73	84	78	73	69	69	66	63	61	59	57	54	52	51	47
4	84	76	70	65	79	72	67	63	65	61	58	58	55	52	51	49	47	44
5	79	70	64	59	75	67	61	57	60	56	53	54	51	49	48	46	44	42
6	75	65	59	54	70	62	57	52	56	52	49	51	48	45	46	44	42	39
7	71	61	54	50	67	58	52	48	53	48	45	48	45	42	44	41	39	37
8	67	57	51	46	63	54	49	45	50	45	42	45	42	40	41	39	37	35
9	63	53	47	43	60	51	46	42	47	43	40	43	40	37	39	37	35	33
10	60	50	44	40	57	48	43	39	44	40	37	41	38	35	38	35	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	115226	115226	115226
5°	111373	109997	111435
10°	95581	95645	95581
15°	74190	73006	74017
20°	53543	52438	52395
25°	37965	36453	36522
30°	28245	27527	27263
35°	21979	21421	20964
40°	16265	15858	14855
45°	8311	10191	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: 10191 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	617.1	9.2
10°-20°	1216.6	18.1
20°-30°	981.4	14.6
30°-40°	681.8	10.2
40°-50°	315.0	4.7
50°-60°	44.2	0.7
60°-70°	1.5	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	174.1	2.6
100°-110°	577.1	8.6
110°-120°	572.7	8.5
120°-130°	466.5	7.0
130°-140°	379.1	5.7
140°-150°	294.4	4.4
150°-160°	212.1	3.2
160°-170°	129.9	1.9
170°-180°	43.9	0.7
0°-30°	2815.2	42.0
0°-40°	3497.0	52.1
0°-60°	3856.2	57.5
0°-90°	3858.3	57.5
90°-120°	1323.9	19.7
90°-150°	2463.9	36.7
90°-180°	2850.0	42.5
0°-180°	6708.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7137	7137	7137	7137	7137	
5°	6872	6835	6787	6870	6876	618
15°	4438	4495	4368	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	4	4	1
95°	25	73	315	113	75	28
105°	101	144	578	1090	1019	107
115°	180	216	465	968	1132	178
125°	252	280	456	761	897	224
135°	301	332	453	653	737	233
145°	350	376	452	562	615	219
155°	399	413	455	502	520	184
165°	438	443	456	475	479	124
175°	458	458	459	462	461	44
180°	460	460	460	460	460	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7136.6	7136.6	7136.6	7136.6	7136.6
2.5°	7132.5	7106.4	7044.0	7100.2	7083.1
5°	6871.7	6835.2	6786.8	6870.5	6875.5
7.5°	6296.0	6307.8	6262.8	6355.2	6345.4
10°	5829.9	5838.7	5833.8	5863.9	5829.9
12.5°	5289.8	5324.7	5258.6	5305.3	5319.6
15°	4438.4	4495.0	4367.6	4429.3	4428.1
17.5°	3640.0	3634.2	3568.4	3579.9	3576.2
20°	3116.2	3107.4	3051.9	3043.1	3049.4
22.5°	2667.7	2652.8	2633.2	2611.0	2619.3
25°	2131.1	2083.3	2046.2	2076.5	2050.1
27.5°	1710.5	1709.8	1679.1	1682.6	1687.6
30°	1515.0	1506.2	1476.5	1477.4	1462.3
32.5°	1341.2	1347.4	1310.8	1303.5	1288.4
35°	1115.1	1115.1	1086.8	1067.4	1063.6
37.5°	905.4	903.2	883.0	855.6	845.7
40°	771.7	765.4	752.4	718.6	704.8
42.5°	619.4	636.2	623.8	589.9	569.0
45°	364.0	434.4	446.3	405.2	293.2
47.5°	156.4	233.9	297.9	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	0.8	0.8
90°	0.0	0.9	2.9	3.8	3.8
92.5°	7.6	29.4	86.7	28.1	23.6
95°	24.8	73.2	315.4	112.6	75.3
97.5°	45.6	96.2	550.6	321.1	203.0
100°	60.0	108.5	637.5	547.6	363.1
102.5°	76.0	123.0	632.2	836.8	632.2
105°	101.0	143.9	577.5	1089.6	1018.7
107.5°	126.6	164.8	525.1	1115.3	1169.1
110°	141.0	179.2	498.4	1089.8	1198.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	156.3	193.7	482.4	1044.8	1183.6
115°	180.1	215.5	465.1	968.1	1132.1
117.5°	203.7	235.2	458.8	894.9	1067.0
120°	218.2	249.0	456.5	849.1	1015.9
122.5°	231.2	261.2	456.5	811.4	965.6
125°	251.6	279.5	456.5	760.7	896.8
127.5°	268.4	295.8	455.3	722.3	838.6
130°	278.3	307.2	454.6	700.0	804.3
132.5°	287.4	317.1	453.8	681.4	775.3
135°	301.1	331.9	452.7	652.8	736.7
137.5°	316.0	345.6	451.5	625.1	699.1
140°	325.9	354.8	450.8	606.7	674.7
142.5°	335.1	363.2	451.5	588.2	648.8
145°	349.7	375.8	451.7	561.6	614.7
147.5°	365.6	387.4	451.9	539.0	578.5
150°	375.5	395.0	452.7	525.9	559.4
152.5°	384.6	403.4	453.4	515.0	541.9
155°	399.3	413.3	454.6	501.7	520.3
157.5°	413.6	424.4	455.7	492.2	505.5
160°	421.2	430.5	456.5	485.3	495.6
162.5°	428.8	435.9	456.5	480.7	488.7
165°	438.4	443.0	456.5	474.7	479.4
167.5°	447.1	449.6	457.4	469.3	471.7
170°	451.7	452.6	457.4	467.0	467.9
172.5°	454.8	455.7	458.2	464.7	464.9
175°	458.4	458.4	459.3	462.2	461.2
177.5°	460.3	460.3	459.5	461.0	459.5
180°	460.3	460.3	460.3	460.3	460.3

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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