

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: P853601

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853601
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-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

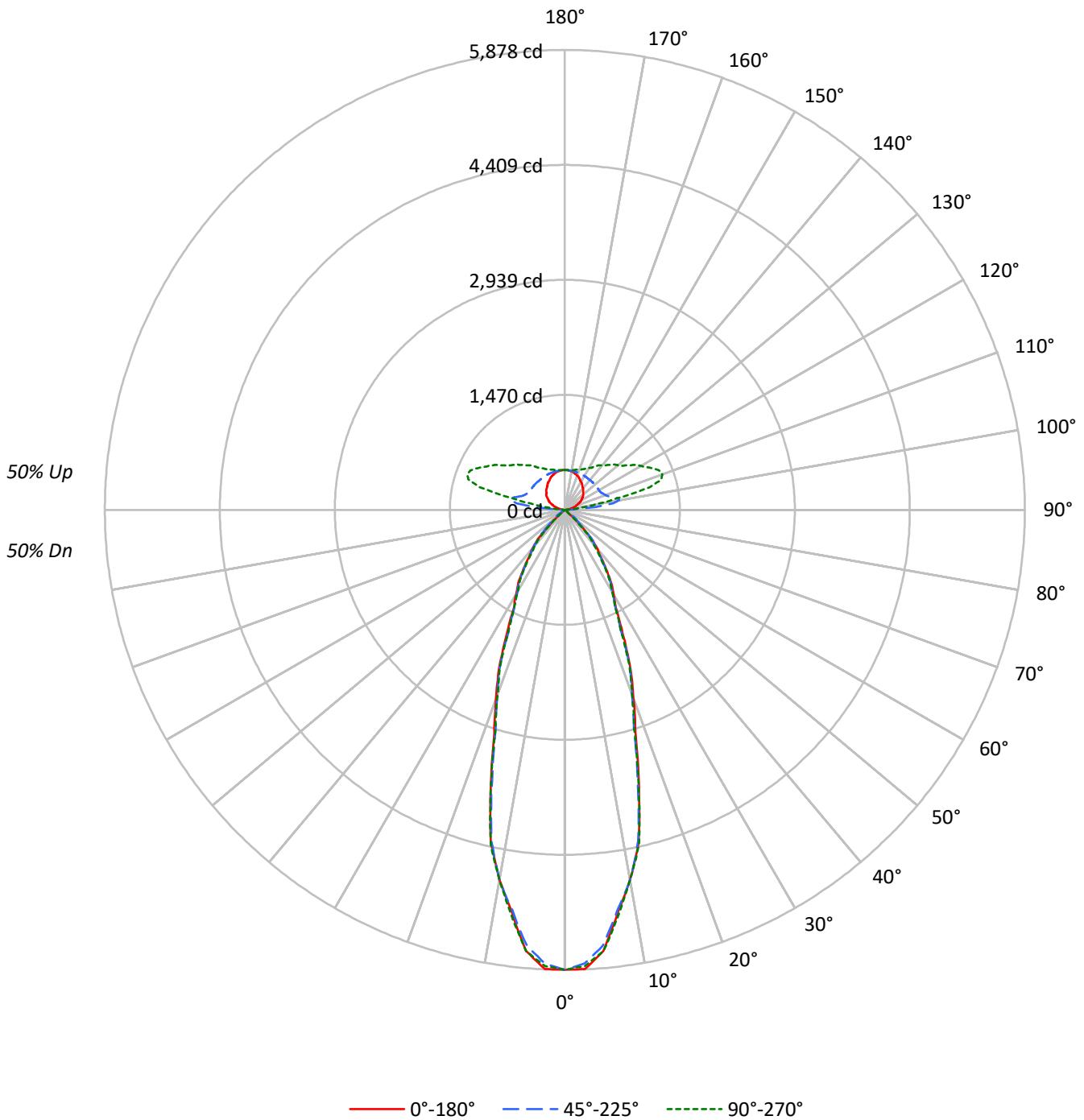
Lumens per Lamp: N/A
Luminaire Lumens: 6326.3 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.9
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

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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	100	97	94	91	93	90	87	85	77	75	74	65	64	63	54	53	52	47
2	94	88	83	79	87	82	78	75	71	68	66	60	58	57	51	50	49	44
3	88	80	75	70	81	75	70	66	65	62	59	56	54	52	48	46	45	41
4	82	74	67	63	76	69	64	60	61	57	54	53	50	48	45	44	42	39
5	77	68	61	56	72	64	58	54	56	52	49	49	46	44	43	41	39	36
6	72	63	56	51	67	59	53	49	53	48	45	46	43	41	41	39	37	34
7	68	58	52	47	64	55	49	45	49	45	42	44	40	38	39	36	35	32
8	64	54	48	43	60	51	46	42	46	42	39	41	38	36	37	34	33	31
9	61	51	44	40	57	48	43	39	43	39	36	39	36	33	35	33	31	29
10	58	47	41	37	54	45	40	36	41	37	34	37	34	32	33	31	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	94908	94908	94908
5°	91733	90600	91785
10°	78727	78779	78727
15°	61107	60132	60964
20°	44101	43192	43154
25°	31271	30025	30082
30°	23265	22672	22454
35°	18102	17643	17268
40°	13396	13061	12235
45°	6846	8394	5514
50°	1490	4629	1090
55°	417	1878	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: 8394 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.3	8.0
10°-20°	1002.1	15.8
20°-30°	808.4	12.8
30°-40°	561.6	8.9
40°-50°	259.4	4.1
50°-60°	36.4	0.6
60°-70°	1.2	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	192.3	3.0
100°-110°	637.5	10.1
110°-120°	632.7	10.0
120°-130°	515.4	8.1
130°-140°	418.8	6.6
140°-150°	325.3	5.1
150°-160°	234.4	3.7
160°-170°	143.5	2.3
170°-180°	48.5	0.8
0°-30°	2318.8	36.7
0°-40°	2880.3	45.5
0°-60°	3176.2	50.2
0°-90°	3178.1	50.2
90°-120°	1462.5	23.1
90°-150°	2722.0	43.0
90°-180°	3148.0	49.8
0°-180°	6326.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5878	5878	5878	5878	5878	
5°	5660	5630	5590	5659	5663	509
15°	3656	3702	3597	3648	3647	1006
25°	1755	1716	1685	1710	1689	822
35°	918	918	895	879	876	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	4	4	1
95°	27	81	348	124	83	31
105°	112	159	638	1204	1126	118
115°	199	238	514	1070	1251	197
125°	278	309	504	840	991	247
135°	333	367	500	721	814	257
145°	386	415	499	620	679	242
155°	441	457	502	554	575	203
165°	484	489	504	524	530	137
175°	506	506	508	511	510	48
180°	508	508	508	508	508	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5878.2	5878.2	5878.2	5878.2	5878.2
2.5°	5874.8	5853.2	5801.9	5848.2	5834.1
5°	5659.9	5629.9	5590.0	5659.0	5663.1
7.5°	5185.8	5195.5	5158.5	5234.5	5226.5
10°	4801.9	4809.1	4805.1	4829.9	4801.9
12.5°	4357.0	4385.8	4331.3	4369.7	4381.6
15°	3655.7	3702.3	3597.4	3648.3	3647.2
17.5°	2998.1	2993.3	2939.2	2948.6	2945.5
20°	2566.7	2559.5	2513.8	2506.5	2511.6
22.5°	2197.2	2185.0	2168.8	2150.6	2157.4
25°	1755.3	1715.9	1685.4	1710.3	1688.6
27.5°	1408.9	1408.3	1383.0	1385.9	1390.0
30°	1247.9	1240.6	1216.1	1216.9	1204.4
32.5°	1104.7	1109.8	1079.7	1073.7	1061.2
35°	918.4	918.4	895.1	879.2	876.1
37.5°	745.8	743.9	727.3	704.7	696.6
40°	635.6	630.4	619.7	591.9	580.5
42.5°	510.2	524.0	513.8	485.8	468.6
45°	299.8	357.8	367.6	333.7	241.5
47.5°	128.8	192.6	245.3	159.9	83.3
50°	59.3	109.0	184.3	78.6	43.4
52.5°	34.7	59.6	136.9	46.0	27.3
55°	14.8	23.1	66.7	18.9	11.7
57.5°	5.5	10.1	25.2	8.2	4.4
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	0.8	0.8
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.4	32.5	95.8	31.1	26.1
95°	27.4	80.9	348.5	124.3	83.2
97.5°	50.3	106.3	608.3	354.8	224.2
100°	66.3	119.9	704.3	604.9	401.1
102.5°	84.0	135.9	698.4	924.5	698.4
105°	111.6	159.0	638.0	1203.7	1125.5
107.5°	139.8	182.0	580.1	1232.1	1291.6
110°	155.8	198.0	550.6	1204.0	1324.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	172.7	214.0	532.9	1154.2	1307.6
115°	199.0	238.1	513.8	1069.6	1250.7
117.5°	225.1	259.9	506.8	988.7	1178.7
120°	241.1	275.1	504.3	938.0	1122.3
122.5°	255.4	288.6	504.3	896.4	1066.7
125°	277.9	308.8	504.3	840.4	990.7
127.5°	296.5	326.7	503.0	798.0	926.5
130°	307.4	339.3	502.2	773.3	888.6
132.5°	317.5	350.3	501.3	752.8	856.6
135°	332.7	366.7	500.1	721.2	813.8
137.5°	349.1	381.8	498.8	690.6	772.3
140°	360.1	392.0	498.0	670.2	745.4
142.5°	370.2	401.3	498.8	649.8	716.8
145°	386.4	415.2	499.0	620.4	679.1
147.5°	403.9	427.9	499.2	595.4	639.1
150°	414.8	436.4	500.1	580.9	618.0
152.5°	424.9	445.7	500.9	569.0	598.6
155°	441.1	456.6	502.2	554.2	574.8
157.5°	456.9	468.9	503.5	543.8	558.4
160°	465.3	475.6	504.3	536.1	547.5
162.5°	473.8	481.6	504.3	531.0	539.9
165°	484.3	489.4	504.3	524.4	529.6
167.5°	494.0	496.7	505.4	518.5	521.1
170°	499.0	500.1	505.4	515.9	516.9
172.5°	502.4	503.4	506.2	513.4	513.6
175°	506.4	506.4	507.5	510.6	509.6
177.5°	508.5	508.5	507.7	509.3	507.7
180°	508.5	508.5	508.5	508.5	508.5



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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