

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: P854427

Luminaire Tested: SQ2-WBN-050U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854427
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-050U-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

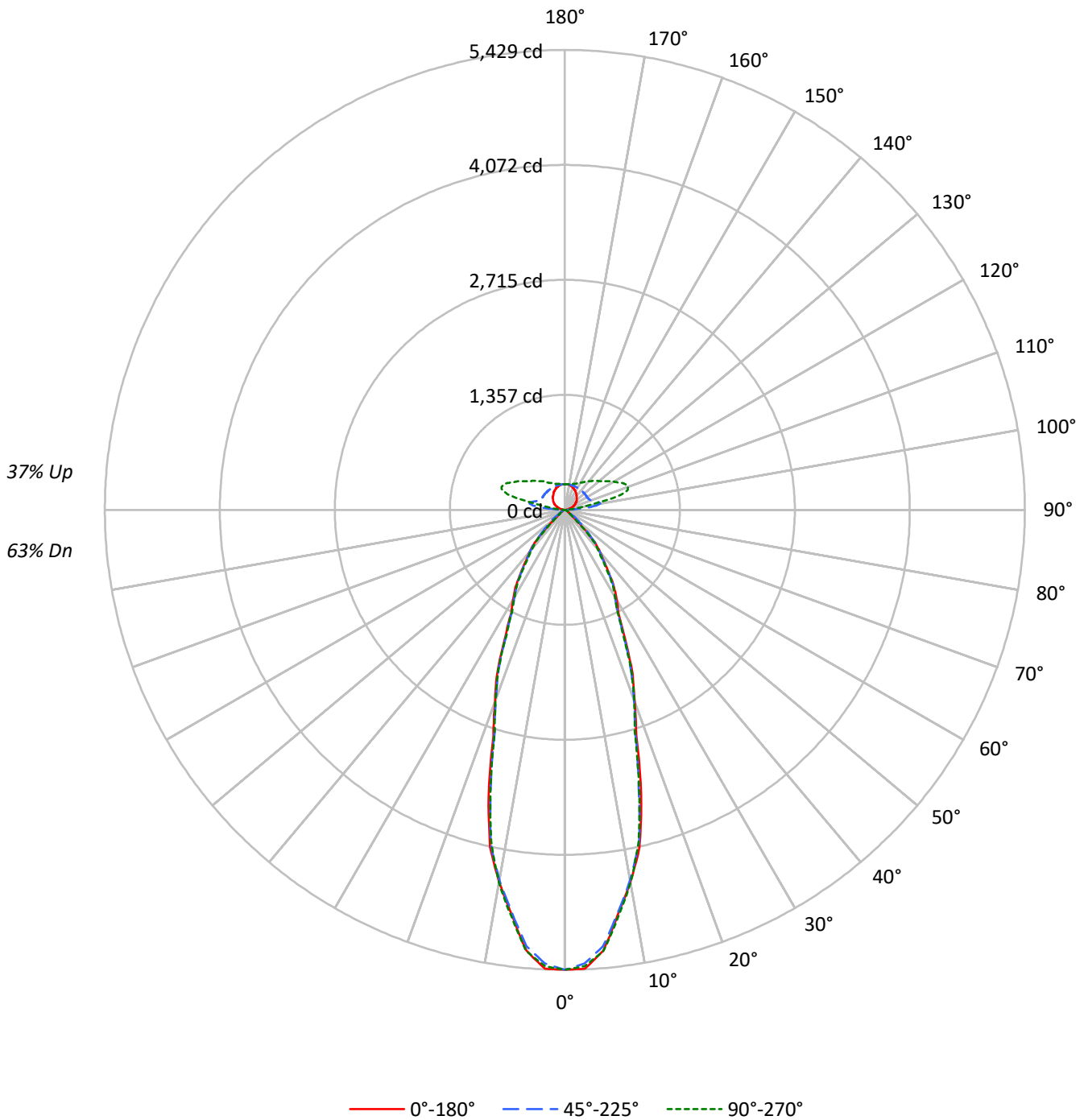
Lumens per Lamp: N/A
Luminaire Lumens: 5043.3 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 42.4
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	50	30	10
RCR																				
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	63		
1	103	100	97	95	97	94	92	90	83	82	80	73	72	71	64	63	63	58		
2	97	91	87	83	91	86	82	79	77	74	72	68	66	65	60	59	58	54		
3	91	84	78	73	86	79	74	70	71	68	65	64	61	59	57	55	54	50		
4	85	77	71	66	80	73	68	64	66	62	59	60	57	54	54	52	50	47		
5	80	71	65	60	76	68	62	58	62	57	54	56	53	50	51	48	46	44		
6	76	66	59	55	72	63	57	53	58	53	50	53	49	47	48	46	43	41		
7	71	61	55	50	68	59	53	49	54	50	46	50	46	43	46	43	41	39		
8	67	57	51	47	64	55	49	45	51	46	43	47	43	41	43	40	38	36		
9	64	54	48	43	61	52	46	42	48	44	40	45	41	38	41	38	36	35		
10	61	51	45	41	58	49	43	40	45	41	38	42	39	36	39	36	34	33		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	87653	87653	87653
5°	84631	83788	84725
10°	73152	72805	73325
15°	58210	56374	56600
20°	41352	40806	41103
25°	29749	29167	28960
30°	22730	22121	22067
35°	17844	17540	17085
40°	13519	13335	12686
45°	7565	9038	6752
50°	2660	5564	2346
55°	1627	3037	1545
60°	1243	1586	1150
65°	1142	1177	1066
70°	1090	1090	1001
75°	1023	1023	961
80°	893	893	893
85°	889	722	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9038 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	471.2	9.3
10°-20°	936.6	18.6
20°-30°	775.6	15.4
30°-40°	558.0	11.1
40°-50°	284.3	5.6
50°-60°	74.0	1.5
60°-70°	30.7	0.6
70°-80°	17.0	0.3
80°-90°	5.4	0.1
90°-100°	121.3	2.4
100°-110°	384.6	7.6
110°-120°	377.1	7.5
120°-130°	306.9	6.1
130°-140°	250.2	5.0
140°-150°	195.1	3.9
150°-160°	140.6	2.8
160°-170°	85.9	1.7
170°-180°	29.0	0.6
0°-30°	2183.4	43.3
0°-40°	2741.4	54.4
0°-60°	3099.6	61.5
0°-90°	3152.8	62.5
90°-120°	883.0	17.5
90°-150°	1635.1	32.4
90°-180°	1891.0	37.5
0°-180°	5043.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5429	5429	5429	5429	5429	
5°	5222	5214	5170	5244	5228	471
15°	3482	3443	3373	3396	3386	945
25°	1670	1667	1637	1623	1626	785
35°	905	911	890	875	867	568
45°	331	381	396	368	296	265
55°	58	67	108	62	55	57
65°	30	31	31	29	28	30
75°	16	16	16	15	15	17
85°	5	5	4	5	4	5
90°	0	1	3	3	3	1
95°	16	49	220	82	53	19
105°	67	94	379	722	692	71
115°	120	142	306	636	749	118
125°	166	185	302	499	588	147
135°	200	220	300	429	483	154
145°	234	251	300	370	403	146
155°	266	276	301	331	344	123
165°	290	293	302	313	316	82
175°	304	302	304	305	304	29
180°	304	304	304	304	304	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5428.8	5428.8	5428.8	5428.8	5428.8
2.5°	5420.3	5411.3	5359.4	5402.3	5391.8
5°	5221.7	5214.2	5169.7	5244.4	5227.5
7.5°	4811.6	4818.0	4792.0	4858.0	4840.0
10°	4461.9	4478.8	4440.7	4536.5	4472.4
12.5°	4075.9	4064.9	4038.5	4053.3	4017.9
15°	3482.4	3442.9	3372.6	3396.5	3386.1
17.5°	2805.0	2820.3	2759.4	2756.8	2745.1
20°	2406.7	2411.4	2374.9	2394.1	2392.2
22.5°	2086.2	2087.1	2040.5	2068.7	2051.7
25°	1669.9	1667.1	1637.2	1622.8	1625.6
27.5°	1369.5	1357.8	1335.2	1344.7	1337.7
30°	1219.2	1209.8	1186.5	1192.1	1183.6
32.5°	1084.4	1084.8	1060.9	1058.1	1051.9
35°	905.3	910.9	889.9	875.2	866.8
37.5°	745.4	750.7	732.9	711.5	704.4
40°	641.4	645.2	632.7	607.6	601.9
42.5°	528.1	544.0	531.8	508.0	495.6
45°	331.3	381.2	395.8	368.2	295.7
47.5°	167.6	236.7	282.4	208.5	137.3
50°	105.9	154.0	221.5	125.4	93.4
52.5°	81.3	106.0	176.8	92.6	74.9
55°	57.8	67.2	107.9	62.4	54.9
57.5°	44.7	50.0	64.5	47.3	42.6
60°	38.5	42.3	49.1	40.3	35.6
62.5°	34.7	36.9	39.9	34.2	32.6
65°	29.9	30.8	30.8	28.9	27.9
67.5°	25.4	26.4	26.2	25.2	24.3
70°	23.1	24.1	23.1	22.1	21.2
72.5°	20.0	21.0	20.0	19.8	18.9
75°	16.4	16.4	16.4	15.4	15.4
77.5°	12.7	12.9	11.9	11.9	11.2
80°	9.6	10.6	9.6	9.6	9.6
82.5°	8.1	8.3	7.3	7.3	7.3
85°	4.8	4.8	3.9	4.8	3.9
87.5°	1.5	1.7	2.1	2.1	2.1
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.3	68.0	22.6	15.9
95°	16.3	49.0	220.2	81.7	52.7
97.5°	30.3	63.6	373.0	233.1	143.0
100°	40.2	72.0	425.1	387.5	251.8
102.5°	50.9	81.3	415.9	569.1	435.6
105°	67.0	94.2	379.1	722.1	692.1
107.5°	83.1	108.2	344.1	738.1	778.5
110°	93.8	118.2	326.4	719.7	794.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.5	127.4	316.5	688.0	783.1
115°	119.7	142.1	306.3	636.3	748.6
117.5°	134.4	155.8	302.3	586.5	699.8
120°	143.6	164.2	301.6	555.8	665.3
122.5°	152.8	172.6	301.6	531.1	633.2
125°	165.6	185.3	301.6	498.9	587.8
127.5°	176.9	195.8	301.6	473.9	549.7
130°	183.8	203.5	301.6	459.2	527.5
132.5°	190.7	210.4	300.8	447.5	509.1
135°	200.1	219.7	299.6	429.2	483.4
137.5°	209.3	229.9	299.5	411.6	460.1
140°	215.4	236.0	298.7	399.2	443.2
142.5°	223.1	242.9	299.5	386.9	427.9
145°	233.6	251.4	299.6	370.3	403.0
147.5°	244.1	259.3	299.8	355.6	382.4
150°	251.8	263.9	300.6	347.0	368.6
152.5°	257.9	268.6	300.6	340.1	357.8
155°	266.1	275.5	300.6	330.6	343.7
157.5°	274.9	281.3	301.6	324.7	333.7
160°	279.5	285.2	301.6	320.9	328.4
162.5°	284.1	288.3	301.6	317.8	323.0
165°	290.1	292.9	301.6	313.1	315.9
167.5°	295.6	296.4	302.5	309.8	312.3
170°	298.7	298.7	302.5	308.3	309.2
172.5°	300.2	301.0	302.5	306.7	306.9
175°	303.5	302.5	303.5	305.4	304.4
177.5°	304.4	303.7	303.7	305.2	303.7
180°	304.4	304.4	304.4	304.4	304.4



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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	3.60	4.34	4.48	5.21	6.31	3.21	3.95	4.09	4.82	5.92
	3H	4.65	5.30	5.54	6.19	7.31	4.21	4.86	5.11	5.75	6.87
	4H	5.07	5.69	5.99	6.58	7.72	4.63	5.25	5.54	6.14	7.27
	6H	5.39	5.95	6.31	6.85	7.99	4.96	5.53	5.88	6.42	7.57
	8H	5.48	6.02	6.41	6.93	8.08	5.06	5.60	5.99	6.51	7.65
	12H	5.55	6.06	6.48	6.96	8.13	5.11	5.62	6.05	6.53	7.69
4H	2H	3.82	4.43	4.74	5.32	6.46	3.48	4.10	4.40	4.99	6.13
	3H	5.12	5.62	6.04	6.55	7.69	4.73	5.24	5.65	6.16	7.31
	4H	5.68	6.14	6.61	7.06	8.23	5.29	5.75	6.22	6.66	7.84
	6H	6.13	6.53	7.08	7.47	8.64	5.74	6.14	6.69	7.08	8.26
	8H	6.29	6.66	7.23	7.59	8.77	5.90	6.27	6.85	7.20	8.39
	12H	6.39	6.72	7.35	7.67	8.86	5.99	6.31	6.95	7.27	8.46
8H	4H	5.82	6.19	6.77	7.12	8.31	5.47	5.83	6.41	6.77	7.95
	6H	6.41	6.71	7.38	7.68	8.87	6.05	6.35	7.02	7.33	8.51
	8H	6.65	6.91	7.63	7.88	9.08	6.29	6.55	7.27	7.52	8.72
	12H	6.84	7.07	7.82	8.03	9.28	6.46	6.69	7.44	7.65	8.91
12H	4H	5.80	6.12	6.76	7.08	8.27	5.45	5.78	6.41	6.73	7.92
	6H	6.43	6.69	7.41	7.66	8.86	6.08	6.35	7.06	7.31	8.52
	8H	6.70	6.93	7.68	7.89	9.14	6.36	6.58	7.33	7.54	8.80