

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: P854444

Luminaire Tested: SQ2-WBN-075U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854444
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-075U-100D-940-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

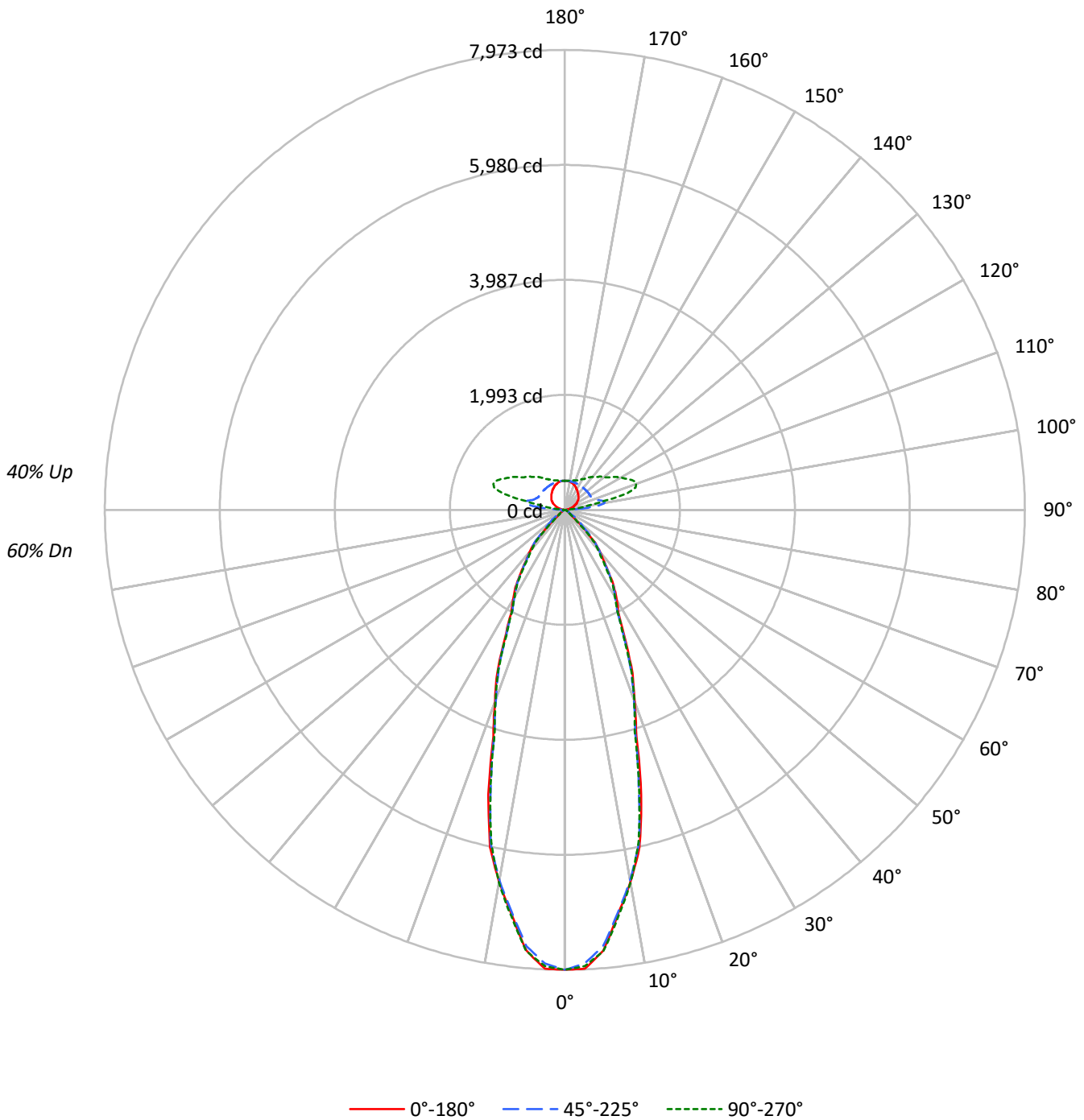
Lumens per Lamp: N/A
Luminaire Lumens: 7764.3 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	50	30	10
RCR																				
0	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60		
1	103	99	96	94	96	93	91	88	82	80	78	71	70	69	62	61	60	56		
2	96	90	86	82	90	85	81	78	75	72	70	66	64	63	58	57	55	52		
3	90	83	77	72	84	78	73	69	70	66	63	62	59	57	55	53	51	48		
4	84	76	70	65	79	72	67	62	65	61	57	58	55	52	52	50	48	45		
5	79	70	64	59	75	67	61	57	60	56	53	54	51	48	49	46	45	42		
6	75	65	58	54	70	62	56	52	56	52	48	51	48	45	46	44	42	39		
7	70	60	54	49	66	58	52	48	53	48	45	48	45	42	44	41	39	37		
8	66	56	50	46	63	54	48	44	50	45	42	45	42	39	41	39	37	35		
9	63	53	47	42	60	51	45	41	47	42	39	43	39	37	39	37	35	33		
10	60	50	44	40	57	48	42	39	44	40	37	41	37	35	38	35	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	128726	128726	128726
5°	124289	123051	124427
10°	107431	106921	107685
15°	85488	82793	83124
20°	60730	59928	60364
25°	43691	42834	42531
30°	33383	32486	32406
35°	26205	25760	25089
40°	19854	19585	18632
45°	11109	13273	9914
50°	3908	8171	3446
55°	2390	4459	2269
60°	1828	2328	1689
65°	1673	1731	1566
70°	1600	1600	1468
75°	1497	1497	1410
80°	1311	1311	1311
85°	1315	1056	1056

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13273 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	692.1	8.9
10°-20°	1375.4	17.7
20°-30°	1139.0	14.7
30°-40°	819.4	10.6
40°-50°	417.5	5.4
50°-60°	108.7	1.4
60°-70°	45.1	0.6
70°-80°	25.0	0.3
80°-90°	7.9	0.1
90°-100°	191.4	2.5
100°-110°	634.6	8.2
110°-120°	629.9	8.1
120°-130°	513.0	6.6
130°-140°	417.0	5.4
140°-150°	323.8	4.2
150°-160°	233.3	3.0
160°-170°	142.9	1.8
170°-180°	48.3	0.6
0°-30°	3206.5	41.3
0°-40°	4026.0	51.9
0°-60°	4552.1	58.6
0°-90°	4630.1	59.6
90°-120°	1456.0	18.8
90°-150°	2709.8	34.9
90°-180°	3134.0	40.4
0°-180°	7764.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7973	7973	7973	7973	7973	
5°	7669	7658	7592	7702	7677	692
15°	5114	5056	4953	4988	4973	1388
25°	2452	2448	2404	2383	2387	1154
35°	1330	1338	1307	1285	1273	834
45°	486	560	581	541	434	389
55°	85	99	158	92	81	83
65°	44	45	45	42	41	44
75°	24	24	24	23	23	25
85°	7	7	6	7	6	7
90°	0	1	3	4	4	1
95°	27	80	347	124	83	31
105°	111	158	635	1198	1120	117
115°	198	237	512	1065	1245	196
125°	277	307	502	837	986	246
135°	331	365	498	718	810	256
145°	385	413	497	618	676	241
155°	439	454	500	552	572	202
165°	482	487	502	522	527	136
175°	504	504	505	508	507	48
180°	506	506	506	506	506	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7972.7	7972.7	7972.7	7972.7	7972.7
2.5°	7960.3	7947.0	7870.9	7933.9	7918.4
5°	7668.6	7657.6	7592.2	7702.0	7677.1
7.5°	7066.4	7075.8	7037.5	7134.5	7108.0
10°	6552.7	6577.6	6521.6	6662.3	6568.2
12.5°	5985.8	5969.8	5930.9	5952.7	5900.7
15°	5114.3	5056.2	4953.1	4988.1	4972.9
17.5°	4119.4	4141.8	4052.4	4048.6	4031.5
20°	3534.5	3541.4	3487.8	3516.0	3513.2
22.5°	3063.8	3065.2	2996.7	3038.0	3013.1
25°	2452.5	2448.3	2404.4	2383.3	2387.4
27.5°	2011.2	1994.1	1960.9	1974.8	1964.5
30°	1790.6	1776.7	1742.5	1750.7	1738.2
32.5°	1592.6	1593.1	1558.0	1553.9	1544.8
35°	1329.5	1337.8	1306.9	1285.4	1272.9
37.5°	1094.7	1102.5	1076.3	1045.0	1034.5
40°	942.0	947.5	929.2	892.3	884.0
42.5°	775.6	798.9	781.0	746.1	727.8
45°	486.5	559.8	581.3	540.7	434.2
47.5°	246.1	347.6	414.7	306.2	201.7
50°	155.6	226.1	325.3	184.2	137.2
52.5°	119.4	155.6	259.7	136.0	110.0
55°	84.9	98.7	158.4	91.7	80.6
57.5°	65.6	73.4	94.8	69.4	62.5
60°	56.6	62.1	72.1	59.2	52.3
62.5°	50.9	54.2	58.6	50.3	47.8
65°	43.8	45.2	45.3	42.4	41.0
67.5°	37.3	38.7	38.5	37.0	35.6
70°	33.9	35.3	33.9	32.5	31.1
72.5°	29.4	30.8	29.4	29.1	27.7
75°	24.0	24.0	24.0	22.6	22.6
77.5°	18.7	18.9	17.5	17.5	16.4
80°	14.1	15.5	14.1	14.1	14.1
82.5°	11.9	12.2	10.7	10.7	10.7
85°	7.1	7.1	5.7	7.0	5.7
87.5°	2.3	2.5	2.9	3.1	3.1
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.4	95.4	30.9	26.0
95°	27.2	80.5	346.9	123.8	82.8
97.5°	50.1	105.8	605.6	353.2	223.2
100°	66.0	119.3	701.2	602.2	399.3
102.5°	83.6	135.3	695.3	920.3	695.3
105°	111.1	158.2	635.1	1198.3	1120.4
107.5°	139.2	181.2	577.5	1226.5	1285.8
110°	155.1	197.1	548.1	1198.6	1318.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.9	213.1	530.5	1149.0	1301.7
115°	198.1	237.0	511.5	1064.8	1245.1
117.5°	224.1	258.7	504.5	984.2	1173.4
120°	240.0	273.8	502.0	933.8	1117.2
122.5°	254.3	287.3	502.0	892.4	1061.9
125°	276.7	307.4	502.0	836.6	986.2
127.5°	295.1	325.3	500.8	794.4	922.3
130°	306.0	337.8	499.9	769.8	884.6
132.5°	316.1	348.7	499.1	749.4	852.7
135°	331.2	365.0	497.8	717.9	810.2
137.5°	347.5	380.1	496.6	687.5	768.9
140°	358.4	390.2	495.7	667.2	742.0
142.5°	368.5	399.5	496.6	646.9	713.5
145°	384.6	413.3	496.8	617.6	676.0
147.5°	402.0	426.0	497.0	592.7	636.2
150°	412.9	434.5	497.8	578.3	615.2
152.5°	423.0	443.7	498.7	566.4	595.9
155°	439.1	454.5	499.9	551.8	572.2
157.5°	454.9	466.8	501.2	541.3	555.9
160°	463.2	473.5	502.0	533.7	545.0
162.5°	471.6	479.4	502.0	528.6	537.5
165°	482.1	487.2	502.0	522.1	527.2
167.5°	491.8	494.4	503.1	516.1	518.8
170°	496.8	497.8	503.1	513.6	514.6
172.5°	500.1	501.2	503.9	511.0	511.3
175°	504.1	504.1	505.2	508.3	507.3
177.5°	506.2	506.2	505.4	507.0	505.4
180°	506.2	506.2	506.2	506.2	506.2



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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	4.68	5.40	5.59	6.30	7.45	4.29	5.01	5.20	5.91	7.06
	3H	5.72	6.36	6.65	7.27	8.44	5.29	5.93	6.21	6.84	8.01
	4H	6.14	6.75	7.08	7.67	8.85	5.71	6.31	6.65	7.23	8.41
	6H	6.46	7.01	7.40	7.93	9.12	6.04	6.59	6.99	7.52	8.71
	8H	6.56	7.08	7.51	8.02	9.21	6.14	6.67	7.10	7.60	8.79
	12H	6.62	7.12	7.58	8.05	9.26	6.19	6.69	7.15	7.62	8.83
4H	2H	4.90	5.50	5.84	6.42	7.60	4.56	5.17	5.51	6.09	7.27
	3H	6.19	6.69	7.14	7.64	8.83	5.81	6.31	6.76	7.25	8.44
	4H	6.75	7.20	7.71	8.15	9.36	6.36	6.82	7.32	7.76	8.98
	6H	7.20	7.59	8.17	8.55	9.77	6.82	7.21	7.79	8.17	9.39
	8H	7.36	7.72	8.33	8.68	9.90	6.98	7.34	7.95	8.29	9.52
	12H	7.46	7.78	8.45	8.76	9.99	7.06	7.38	8.05	8.36	9.59
8H	4H	6.89	7.25	7.86	8.21	9.44	6.54	6.91	7.51	7.86	9.09
	6H	7.48	7.77	8.47	8.77	10.00	7.13	7.42	8.12	8.42	9.65
	8H	7.72	7.98	8.72	8.97	10.21	7.37	7.62	8.37	8.61	9.86
	12H	7.91	8.14	8.91	9.12	10.41	7.54	7.76	8.54	8.74	10.04
12H	4H	6.87	7.19	7.85	8.16	9.40	6.53	6.85	7.51	7.83	9.06
	6H	7.50	7.75	8.50	8.74	9.99	7.16	7.42	8.16	8.41	9.65
	8H	7.77	7.99	8.77	8.98	10.27	7.43	7.66	8.43	8.64	9.93