

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: P854430

Luminaire Tested: SQ2-WBN-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854430
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

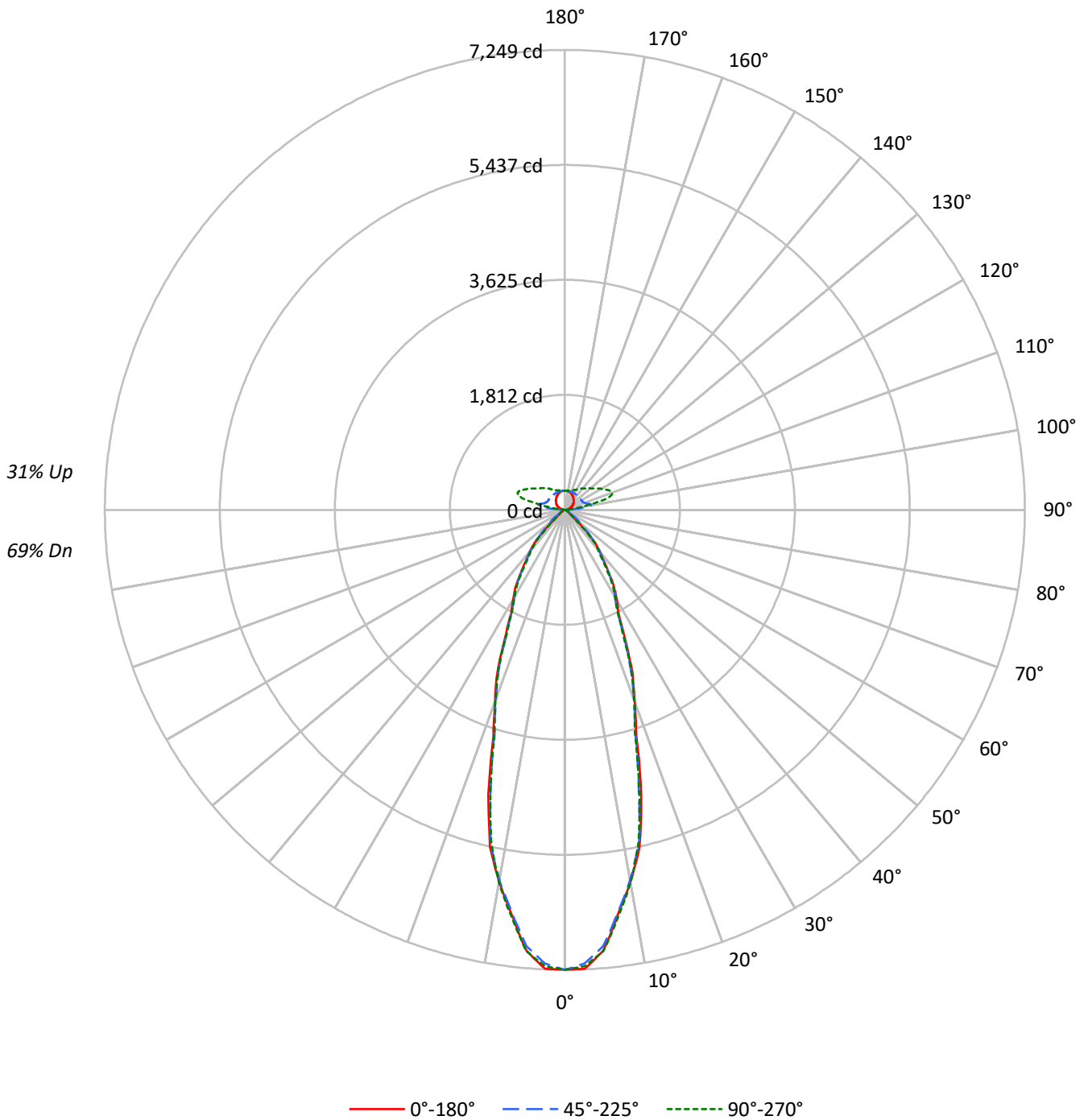
Lumens per Lamp: N/A
Luminaire Lumens: 6091.5 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.9
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	50	30	10	0	
RCR																						
0	112	112	112	112	106	106	106	106	94	94	94	83	83	83	74	74	74	69				
1	105	102	99	96	99	97	94	92	87	85	84	78	77	76	70	69	68	64				
2	99	93	89	85	94	89	85	82	81	78	75	73	71	69	66	65	63	60				
3	93	86	80	76	88	82	77	73	75	71	68	68	66	63	62	60	59	56				
4	87	79	73	68	83	76	71	66	70	66	62	64	61	58	59	56	55	52				
5	82	73	67	62	78	70	65	61	65	61	57	60	57	54	56	53	51	49				
6	78	68	62	57	74	66	60	56	61	56	53	57	53	50	53	50	48	45				
7	73	64	57	53	70	62	56	52	57	53	49	54	50	47	50	47	45	43				
8	70	60	53	49	67	58	52	48	54	49	46	51	47	44	47	44	42	40				
9	66	56	50	46	63	54	49	45	51	46	43	48	44	42	45	42	40	38				
10	63	53	47	43	60	51	46	42	48	44	41	46	42	39	43	40	38	36				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	117036	117036	117036
5°	113002	111877	113127
10°	97674	97210	97907
15°	77725	75274	75575
20°	55214	54486	54883
25°	39724	38944	38669
30°	30352	29535	29464
35°	23826	23420	22811
40°	18050	17806	16940
45°	10102	12068	9015
50°	3554	7430	3132
55°	2173	4054	2063
60°	1660	2118	1537
65°	1524	1570	1425
70°	1459	1459	1336
75°	1366	1366	1285
80°	1199	1199	1199
85°	1186	945	945

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12068 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	629.2	10.3
10°-20°	1250.5	20.5
20°-30°	1035.6	17.0
30°-40°	745.0	12.2
40°-50°	379.5	6.2
50°-60°	98.8	1.6
60°-70°	41.0	0.7
70°-80°	22.8	0.4
80°-90°	7.1	0.1
90°-100°	120.7	2.0
100°-110°	382.8	6.3
110°-120°	375.4	6.2
120°-130°	305.5	5.0
130°-140°	249.1	4.1
140°-150°	194.2	3.2
150°-160°	139.9	2.3
160°-170°	85.5	1.4
170°-180°	28.9	0.5
0°-30°	2915.3	47.9
0°-40°	3660.4	60.1
0°-60°	4138.7	67.9
0°-90°	4209.6	69.1
90°-120°	879.0	14.4
90°-150°	1627.7	26.7
90°-180°	1882.0	30.9
0°-180°	6091.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7249	7249	7249	7249	7249	
5°	6972	6962	6903	7003	6980	629
15°	4650	4597	4503	4535	4521	1262
25°	2230	2226	2186	2167	2171	1049
35°	1209	1216	1188	1169	1157	759
45°	442	509	528	492	395	353
55°	77	90	144	83	73	76
65°	40	41	41	38	37	40
75°	22	22	22	21	21	23
85°	6	6	5	6	5	7
90°	0	1	3	3	3	1
95°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7248.7	7248.7	7248.7	7248.7	7248.7
2.5°	7237.4	7225.3	7156.1	7213.4	7199.3
5°	6972.2	6962.1	6902.8	7002.6	6979.9
7.5°	6424.7	6433.2	6398.4	6486.6	6462.5
10°	5957.6	5980.3	5929.3	6057.3	5971.8
12.5°	5442.2	5427.6	5392.3	5412.1	5364.8
15°	4649.9	4597.0	4503.3	4535.1	4521.3
17.5°	3745.3	3765.7	3684.4	3681.0	3665.4
20°	3213.5	3219.8	3171.1	3196.7	3194.2
22.5°	2785.5	2786.8	2724.6	2762.1	2739.5
25°	2229.8	2226.0	2186.0	2166.8	2170.6
27.5°	1828.6	1813.0	1782.8	1795.4	1786.1
30°	1628.0	1615.4	1584.2	1591.7	1580.4
32.5°	1447.9	1448.4	1416.6	1412.8	1404.5
35°	1208.8	1216.3	1188.2	1168.6	1157.3
37.5°	995.3	1002.3	978.6	950.1	940.5
40°	856.4	861.4	844.8	811.2	803.7
42.5°	705.2	726.3	710.1	678.3	661.7
45°	442.4	509.0	528.5	491.6	394.8
47.5°	223.7	316.0	377.0	278.4	183.4
50°	141.5	205.6	295.8	167.5	124.7
52.5°	108.5	141.5	236.1	123.7	100.0
55°	77.2	89.7	144.0	83.4	73.3
57.5°	59.7	66.7	86.2	63.1	56.8
60°	51.4	56.5	65.6	53.9	47.6
62.5°	46.3	49.3	53.2	45.7	43.5
65°	39.9	41.1	41.1	38.5	37.3
67.5°	33.9	35.2	35.0	33.7	32.4
70°	30.9	32.1	30.9	29.5	28.3
72.5°	26.7	28.0	26.7	26.5	25.2
75°	21.9	21.9	21.9	20.6	20.6
77.5°	17.0	17.2	15.9	15.9	14.9
80°	12.9	14.1	12.9	12.9	12.9
82.5°	10.8	11.1	9.8	9.8	9.8
85°	6.4	6.4	5.1	6.4	5.1
87.5°	2.1	2.2	2.6	2.6	2.6
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



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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	5.17	5.95	5.99	6.76	7.74	4.79	5.57	5.61	6.37	7.36
	3H	6.22	6.91	7.05	7.73	8.74	5.79	6.48	6.62	7.29	8.31
	4H	6.65	7.30	7.50	8.12	9.15	6.21	6.86	7.06	7.68	8.71
	6H	6.97	7.56	7.82	8.39	9.43	6.55	7.14	7.41	7.97	9.01
	8H	7.07	7.62	7.93	8.47	9.51	6.65	7.21	7.52	8.06	9.10
	12H	7.13	7.66	8.00	8.50	9.56	6.70	7.23	7.57	8.07	9.13
4H	2H	5.39	6.04	6.25	6.86	7.89	5.07	5.71	5.92	6.54	7.57
	3H	6.69	7.22	7.55	8.08	9.12	6.31	6.84	7.17	7.70	8.74
	4H	7.26	7.74	8.13	8.59	9.66	6.87	7.35	7.74	8.21	9.28
	6H	7.71	8.12	8.60	9.00	10.08	7.33	7.74	8.22	8.62	9.70
	8H	7.87	8.25	8.75	9.12	10.21	7.49	7.87	8.37	8.74	9.83
	12H	7.97	8.31	8.87	9.21	10.29	7.57	7.91	8.47	8.81	9.89
8H	4H	7.40	7.78	8.29	8.66	9.74	7.05	7.43	7.94	8.31	9.39
	6H	7.99	8.30	8.90	9.21	10.30	7.64	7.95	8.55	8.87	9.95
	8H	8.23	8.50	9.15	9.41	10.51	7.88	8.15	8.80	9.06	10.17
	12H	8.42	8.66	9.34	9.56	10.71	8.05	8.29	8.97	9.19	10.34
12H	4H	7.38	7.72	8.28	8.61	9.70	7.04	7.38	7.94	8.27	9.36
	6H	8.01	8.28	8.93	9.19	10.29	7.67	7.94	8.59	8.86	9.96
	8H	8.28	8.52	9.20	9.42	10.58	7.94	8.18	8.86	9.08	10.24