

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: P854446

Luminaire Tested: SQ2-WBN-075U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854446
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-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

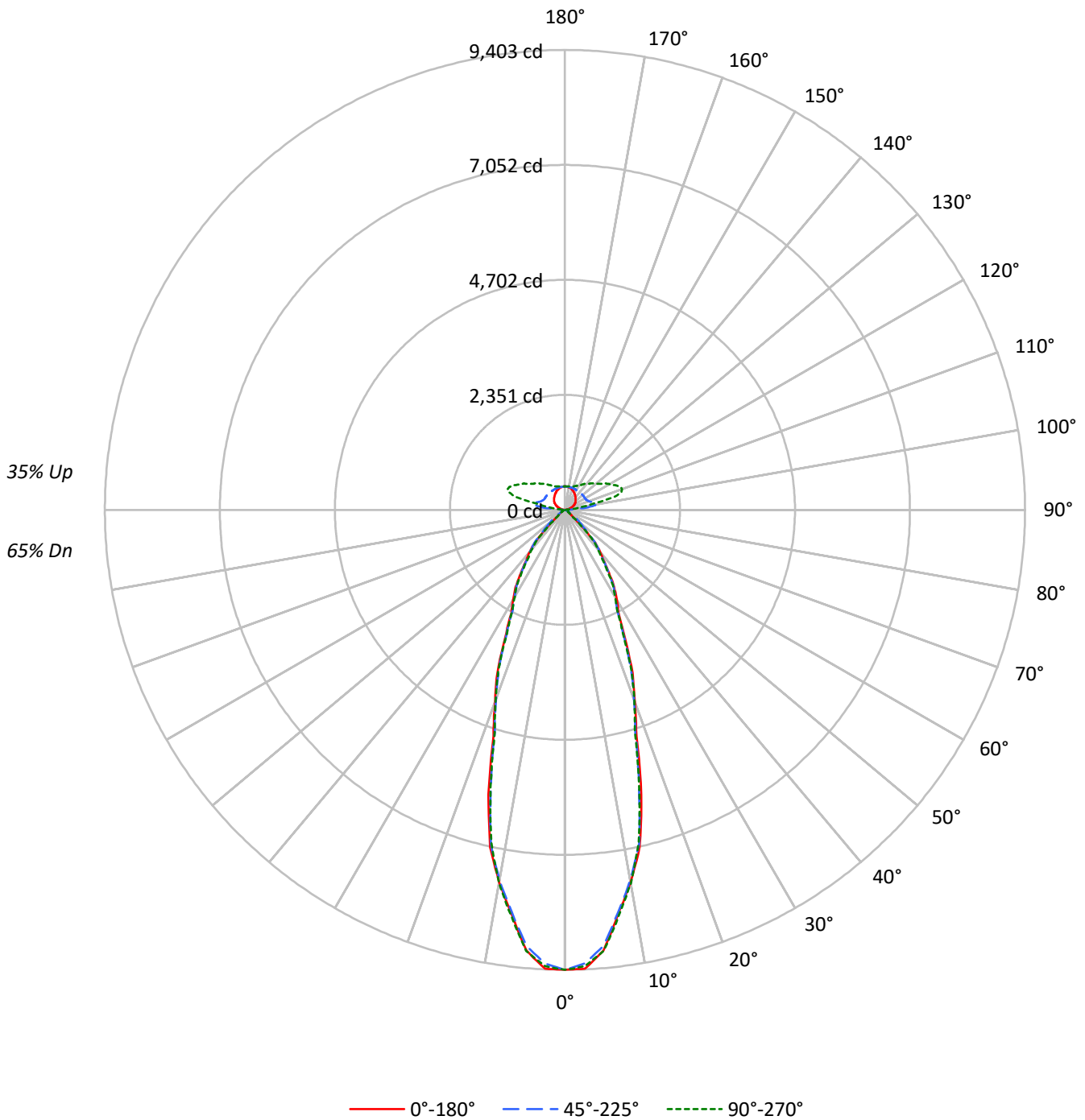
Lumens per Lamp: N/A
Luminaire Lumens: 8413.7 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 73
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	104	101	98	95	98	95	93	90	85	83	81	75	74	73	66	65	65	61
2	98	92	87	83	92	87	83	80	78	75	73	70	68	66	63	61	60	56
3	92	84	79	74	87	80	75	71	73	69	66	66	63	61	59	57	55	52
4	86	78	72	67	81	74	69	65	68	63	60	61	58	56	56	53	52	49
5	81	72	65	61	77	69	63	59	63	59	55	58	54	52	53	50	48	46
6	76	67	60	56	72	64	58	54	59	54	51	54	51	48	50	47	45	43
7	72	62	56	51	69	60	54	50	55	51	47	51	47	45	47	44	42	40
8	68	58	52	48	65	56	50	46	52	47	44	48	45	42	45	42	40	38
9	65	55	48	44	62	53	47	43	49	45	41	46	42	39	43	40	38	36
10	61	51	45	41	59	50	44	41	47	42	39	44	40	37	41	38	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	151826	151826	151826
5°	146594	145133	146756
10°	126710	126108	127010
15°	100829	97650	98041
20°	71627	70682	71197
25°	51532	50521	50165
30°	39373	38316	38223
35°	30908	30382	29591
40°	23416	23100	21975
45°	13102	15655	11693
50°	4609	9638	4064
55°	2818	5258	2677
60°	2154	2748	1992
65°	1975	2040	1849
70°	1888	1888	1733
75°	1772	1772	1666
80°	1553	1553	1553
85°	1538	1241	1241

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15655 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	816.2	9.7
10°-20°	1622.3	19.3
20°-30°	1343.4	16.0
30°-40°	966.5	11.5
40°-50°	492.4	5.9
50°-60°	128.2	1.5
60°-70°	53.2	0.6
70°-80°	29.5	0.4
80°-90°	9.2	0.1
90°-100°	180.4	2.1
100°-110°	597.9	7.1
110°-120°	593.4	7.1
120°-130°	483.3	5.7
130°-140°	392.8	4.7
140°-150°	305.1	3.6
150°-160°	219.8	2.6
160°-170°	134.6	1.6
170°-180°	45.5	0.5
0°-30°	3782.0	44.9
0°-40°	4748.5	56.4
0°-60°	5369.0	63.8
0°-90°	5460.9	64.9
90°-120°	1371.7	16.3
90°-150°	2552.9	30.3
90°-180°	2953.0	35.1
0°-180°	8413.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9403	9403	9403	9403	9403	
5°	9045	9032	8955	9084	9055	816
15°	6032	5964	5842	5883	5865	1637
25°	2893	2888	2836	2811	2816	1361
35°	1568	1578	1541	1516	1501	984
45°	574	660	686	638	512	459
55°	100	116	187	108	95	98
65°	52	53	53	50	48	52
75°	28	28	28	27	27	30
85°	8	8	7	8	7	9
90°	0	1	3	4	4	1
95°	26	76	327	117	78	29
105°	105	149	598	1129	1056	110
115°	187	223	482	1003	1173	184
125°	261	290	473	788	929	232
135°	312	344	469	676	763	241
145°	362	389	468	582	637	227
155°	414	428	471	520	539	191
165°	454	459	473	492	497	128
175°	475	475	476	479	478	45
180°	477	477	477	477	477	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9403.4	9403.4	9403.4	9403.4	9403.4
2.5°	9388.8	9373.1	9283.3	9357.6	9339.4
5°	9044.8	9031.7	8954.7	9084.1	9054.8
7.5°	8334.5	8345.6	8300.4	8414.8	8383.5
10°	7728.6	7758.0	7691.9	7857.9	7746.9
12.5°	7060.0	7041.1	6995.3	7020.9	6959.6
15°	6032.1	5963.6	5841.9	5883.2	5865.3
17.5°	4858.7	4885.1	4779.6	4775.2	4754.9
20°	4168.7	4176.9	4113.7	4147.0	4143.7
22.5°	3613.6	3615.2	3534.5	3583.2	3553.9
25°	2892.6	2887.7	2835.9	2811.0	2815.9
27.5°	2372.1	2351.9	2312.7	2329.1	2317.1
30°	2111.9	2095.6	2055.2	2064.9	2050.2
32.5°	1878.4	1879.0	1837.6	1832.7	1822.0
35°	1568.1	1577.9	1541.4	1516.0	1501.3
37.5°	1291.2	1300.3	1269.5	1232.5	1220.1
40°	1111.0	1117.5	1096.0	1052.4	1042.6
42.5°	914.8	942.2	921.2	880.0	858.4
45°	573.8	660.3	685.6	637.7	512.1
47.5°	290.3	410.0	489.1	361.2	237.9
50°	183.5	266.7	383.7	217.3	161.8
52.5°	140.8	183.5	306.3	160.4	129.8
55°	100.1	116.4	186.8	108.1	95.1
57.5°	77.4	86.5	111.8	81.9	73.7
60°	66.7	73.3	85.1	69.9	61.7
62.5°	60.1	64.0	69.1	59.3	56.4
65°	51.7	53.3	53.4	50.0	48.4
67.5°	44.0	45.7	45.4	43.7	42.0
70°	40.0	41.7	40.0	38.3	36.7
72.5°	34.7	36.3	34.7	34.3	32.7
75°	28.4	28.4	28.4	26.7	26.7
77.5°	22.0	22.3	20.7	20.7	19.4
80°	16.7	18.3	16.7	16.7	16.7
82.5°	14.0	14.3	12.7	12.7	12.7
85°	8.3	8.3	6.7	8.3	6.7
87.5°	2.7	2.9	3.3	3.5	3.5
90°	0.0	1.0	3.0	3.9	3.9
92.5°	7.9	30.5	89.9	29.1	24.5
95°	25.7	75.9	326.8	116.6	78.0
97.5°	47.2	99.7	570.5	332.7	210.3
100°	62.2	112.4	660.6	567.4	376.2
102.5°	78.8	127.5	655.0	867.1	655.0
105°	104.7	149.1	598.4	1128.9	1055.5
107.5°	131.1	170.7	544.1	1155.5	1211.3
110°	146.1	185.7	516.4	1129.2	1242.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	161.9	200.7	499.8	1082.5	1226.4
115°	186.6	223.3	481.9	1003.1	1173.0
117.5°	211.1	243.7	475.3	927.3	1105.5
120°	226.1	258.0	473.0	879.8	1052.6
122.5°	239.5	270.6	473.0	840.7	1000.4
125°	260.7	289.6	473.0	788.2	929.1
127.5°	278.1	306.4	471.8	748.4	868.9
130°	288.3	318.3	471.0	725.2	833.4
132.5°	297.8	328.5	470.2	706.0	803.3
135°	312.0	343.9	469.0	676.4	763.3
137.5°	327.4	358.1	467.8	647.7	724.4
140°	337.7	367.6	467.0	628.6	699.1
142.5°	347.2	376.3	467.8	609.5	672.2
145°	362.4	389.4	468.0	581.8	636.9
147.5°	378.8	401.4	468.2	558.4	599.4
150°	389.0	409.3	469.0	544.8	579.6
152.5°	398.5	418.0	469.8	533.6	561.4
155°	413.7	428.2	471.0	519.8	539.1
157.5°	428.5	439.7	472.2	510.0	523.7
160°	436.4	446.1	473.0	502.8	513.4
162.5°	444.3	451.7	473.0	498.0	506.3
165°	454.2	459.0	473.0	491.8	496.7
167.5°	463.3	465.8	474.0	486.3	488.8
170°	468.0	469.0	474.0	483.8	484.8
172.5°	471.2	472.2	474.7	481.5	481.7
175°	474.9	474.9	475.9	478.9	477.9
177.5°	476.9	476.9	476.1	477.7	476.1
180°	476.9	476.9	476.9	476.9	476.9



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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	5.72	6.47	6.58	7.32	8.38	5.33	6.08	6.19	6.93	7.99
	3H	6.76	7.43	7.64	8.29	9.38	6.33	7.00	7.20	7.86	8.94
	4H	7.19	7.82	8.08	8.68	9.78	6.75	7.38	7.64	8.25	9.34
	6H	7.51	8.08	8.40	8.95	10.06	7.09	7.66	7.99	8.54	9.64
	8H	7.60	8.15	8.51	9.04	10.14	7.19	7.73	8.10	8.62	9.73
	12H	7.67	8.19	8.58	9.07	10.20	7.24	7.75	8.15	8.64	9.76
4H	2H	5.94	6.56	6.83	7.43	8.53	5.61	6.23	6.50	7.10	8.20
	3H	7.23	7.75	8.13	8.65	9.76	6.85	7.37	7.75	8.27	9.38
	4H	7.80	8.27	8.71	9.16	10.30	7.41	7.88	8.32	8.77	9.91
	6H	8.25	8.65	9.18	9.57	10.71	7.87	8.27	8.79	9.19	10.33
	8H	8.41	8.78	9.33	9.69	10.84	8.02	8.40	8.95	9.31	10.46
	12H	8.51	8.84	9.45	9.78	10.93	8.11	8.44	9.05	9.37	10.53
8H	4H	7.94	8.31	8.87	9.23	10.38	7.59	7.96	8.52	8.88	10.03
	6H	8.53	8.83	9.48	9.78	10.93	8.18	8.48	9.13	9.44	10.59
	8H	8.77	9.03	9.73	9.98	11.15	8.42	8.68	9.38	9.63	10.80
	12H	8.96	9.19	9.92	10.13	11.35	8.59	8.82	9.55	9.76	10.98
12H	4H	7.92	8.25	8.86	9.18	10.33	7.58	7.91	8.52	8.84	9.99
	6H	8.55	8.81	9.51	9.76	10.93	8.21	8.48	9.17	9.42	10.59
	8H	8.82	9.05	9.78	9.99	11.21	8.48	8.71	9.44	9.65	10.87