

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: P854428

Luminaire Tested: SQ2-WBN-050U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854428
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-935-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

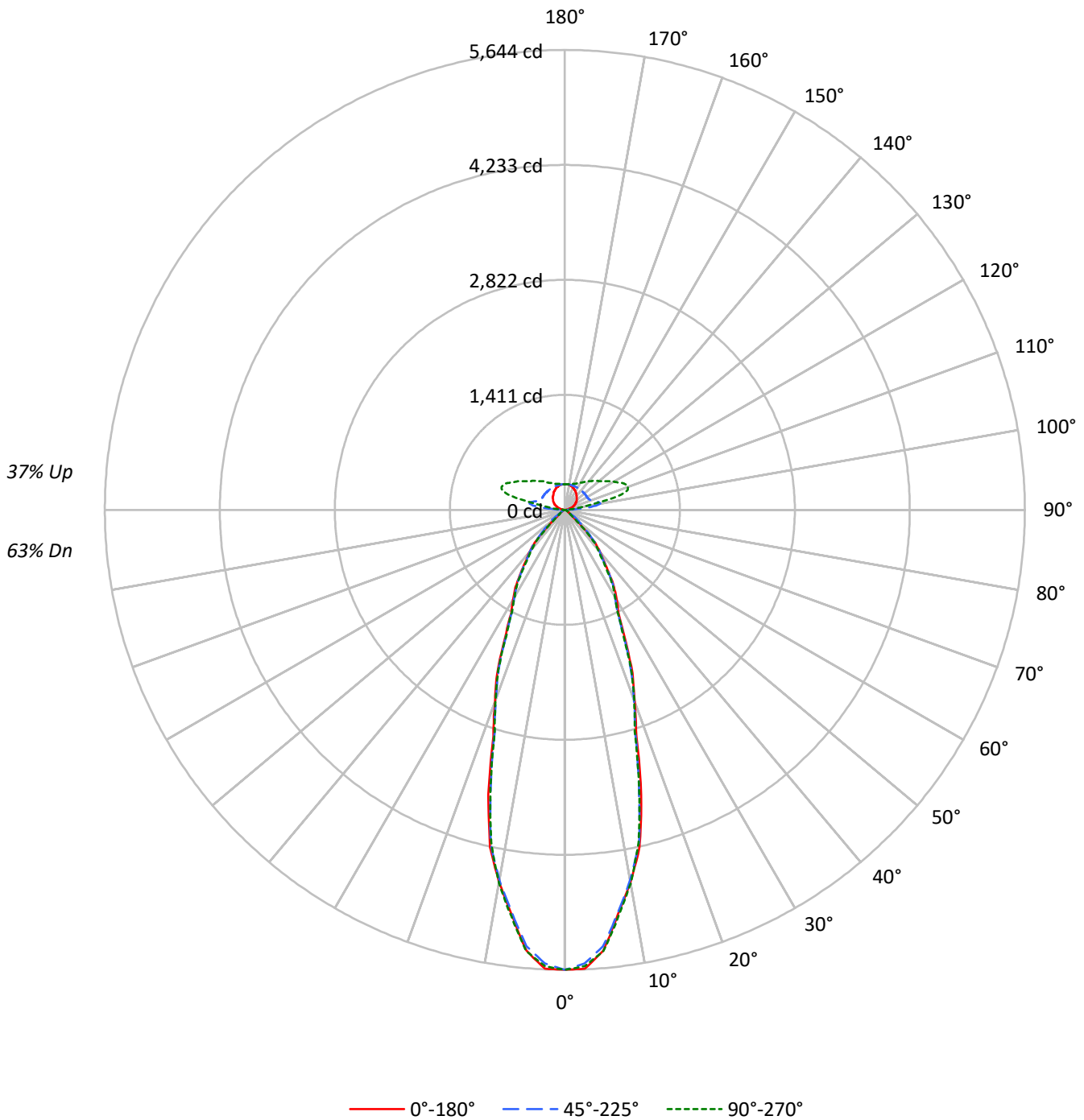
Lumens per Lamp: N/A
Luminaire Lumens: 5243.5 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	0
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°	91134	91134	91134
5°	87992	87115	88089
10°	76058	75695	76238
15°	60521	58614	58848
20°	42995	42426	42737
25°	30932	30325	30111
30°	23635	22999	22943
35°	18551	18236	17763
40°	14056	13866	13190
45°	7866	9396	7019
50°	2766	5785	2439
55°	1692	3156	1607
60°	1295	1650	1195
65°	1184	1223	1108
70°	1133	1133	1039
75°	1061	1061	998
80°	930	930	930
85°	926	741	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9396 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	489.9	9.3
10°-20°	973.8	18.6
20°-30°	806.4	15.4
30°-40°	580.1	11.1
40°-50°	295.5	5.6
50°-60°	76.9	1.5
60°-70°	31.9	0.6
70°-80°	17.7	0.3
80°-90°	5.7	0.1
90°-100°	126.1	2.4
100°-110°	399.9	7.6
110°-120°	392.1	7.5
120°-130°	319.0	6.1
130°-140°	260.1	5.0
140°-150°	202.8	3.9
150°-160°	146.1	2.8
160°-170°	89.3	1.7
170°-180°	30.1	0.6
0°-30°	2270.1	43.3
0°-40°	2850.2	54.4
0°-60°	3222.7	61.5
0°-90°	3278.0	62.5
90°-120°	918.0	17.5
90°-150°	1700.0	32.4
90°-180°	1966.0	37.5
0°-180°	5243.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5644	5644	5644	5644	5644	
5°	5429	5421	5375	5453	5435	490
15°	3621	3580	3507	3531	3521	983
25°	1736	1733	1702	1687	1690	817
35°	941	947	925	910	901	591
45°	344	396	412	383	307	275
55°	60	70	112	65	57	59
65°	31	32	32	30	29	31
75°	17	17	17	16	16	18
85°	5	5	4	5	4	5
90°	0	1	3	3	3	1
95°	17	51	229	85	55	20
105°	70	98	394	751	720	73
115°	124	148	318	662	778	123
125°	172	193	314	519	611	153
135°	208	228	312	446	503	161
145°	243	261	312	385	419	152
155°	277	286	312	344	357	128
165°	302	304	314	326	328	85
175°	316	315	316	318	316	30
180°	316	316	316	316	316	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5644.4	5644.4	5644.4	5644.4	5644.4
2.5°	5635.6	5626.2	5572.3	5616.9	5605.9
5°	5429.1	5421.3	5375.0	5452.7	5435.1
7.5°	5002.8	5009.4	4982.3	5051.0	5032.2
10°	4639.1	4656.7	4617.0	4716.7	4650.1
12.5°	4237.8	4226.4	4198.9	4214.3	4177.5
15°	3620.7	3579.6	3506.6	3531.4	3520.6
17.5°	2916.4	2932.3	2869.0	2866.3	2854.1
20°	2502.3	2507.2	2469.2	2489.2	2487.3
22.5°	2169.0	2170.0	2121.6	2150.8	2133.2
25°	1736.3	1733.3	1702.2	1687.3	1690.2
27.5°	1423.9	1411.7	1388.2	1398.1	1390.8
30°	1267.7	1257.9	1233.6	1239.4	1230.6
32.5°	1127.5	1127.9	1103.0	1100.1	1093.6
35°	941.2	947.1	925.2	910.0	901.2
37.5°	775.0	780.5	762.0	739.8	732.4
40°	666.9	670.8	657.9	631.7	625.8
42.5°	549.1	565.6	552.9	528.2	515.3
45°	344.5	396.3	411.5	382.8	307.4
47.5°	174.2	246.1	293.6	216.8	142.8
50°	110.1	160.1	230.3	130.4	97.1
52.5°	84.5	110.2	183.8	96.3	77.9
55°	60.1	69.9	112.1	64.9	57.1
57.5°	46.5	51.9	67.1	49.2	44.3
60°	40.1	44.0	51.1	41.9	37.0
62.5°	36.0	38.4	41.5	35.6	33.8
65°	31.0	32.0	32.0	30.0	29.0
67.5°	26.4	27.4	27.2	26.2	25.2
70°	24.0	25.0	24.0	23.0	22.0
72.5°	20.8	21.8	20.8	20.6	19.6
75°	17.0	17.0	17.0	16.0	16.0
77.5°	13.2	13.4	12.4	12.4	11.6
80°	10.0	11.0	10.0	10.0	10.0
82.5°	8.4	8.6	7.6	7.6	7.6
85°	5.0	5.0	4.0	5.0	4.0
87.5°	1.6	1.8	2.2	2.2	2.2
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.1	70.7	23.5	16.5
95°	16.9	51.0	228.9	84.9	54.7
97.5°	31.5	66.1	387.8	242.3	148.7
100°	41.8	74.9	441.9	402.9	261.8
102.5°	53.0	84.5	432.4	591.7	452.9
105°	69.7	97.9	394.2	750.8	719.6
107.5°	86.4	112.5	357.7	767.4	809.4
110°	97.5	122.8	339.4	748.3	826.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.7	132.4	329.1	715.3	814.2
115°	124.4	147.8	318.5	661.6	778.4
117.5°	139.7	161.9	314.3	609.8	727.6
120°	149.3	170.7	313.5	577.9	691.8
122.5°	158.9	179.5	313.5	552.2	658.3
125°	172.2	192.6	313.5	518.7	611.1
127.5°	183.9	203.6	313.5	492.7	571.5
130°	191.1	211.5	313.5	477.4	548.4
132.5°	198.3	218.7	312.7	465.3	529.3
135°	208.0	228.5	311.5	446.2	502.7
137.5°	217.6	239.0	311.3	428.0	478.4
140°	224.0	245.4	310.5	415.1	460.8
142.5°	231.9	252.5	311.3	402.3	444.9
145°	242.9	261.4	311.5	385.0	419.0
147.5°	253.8	269.6	311.7	369.7	397.5
150°	261.8	274.4	312.5	360.8	383.2
152.5°	268.1	279.2	312.5	353.6	372.1
155°	276.7	286.4	312.5	343.7	357.3
157.5°	285.9	292.5	313.5	337.6	347.0
160°	290.6	296.5	313.5	333.6	341.4
162.5°	295.4	299.7	313.5	330.4	335.8
165°	301.6	304.5	313.5	325.5	328.5
167.5°	307.4	308.1	314.5	322.2	324.7
170°	310.5	310.5	314.5	320.5	321.5
172.5°	312.1	312.9	314.5	318.9	319.1
175°	315.5	314.6	315.5	317.5	316.5
177.5°	316.5	315.7	315.7	317.3	315.7
180°	316.5	316.5	316.5	316.5	316.5



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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	3.74	4.48	4.62	5.35	6.45	3.34	4.08	4.23	4.96	6.05
	3H	4.78	5.44	5.68	6.32	7.45	4.34	5.00	5.24	5.88	7.01
	4H	5.21	5.82	6.12	6.71	7.85	4.76	5.38	5.68	6.27	7.41
	6H	5.52	6.08	6.44	6.98	8.12	5.10	5.66	6.02	6.56	7.70
	8H	5.62	6.15	6.55	7.06	8.21	5.20	5.73	6.13	6.65	7.79
	12H	5.68	6.19	6.61	7.09	8.26	5.25	5.76	6.18	6.66	7.83
4H	2H	3.95	4.57	4.87	5.46	6.60	3.62	4.24	4.54	5.13	6.26
	3H	5.25	5.76	6.17	6.68	7.82	4.86	5.37	5.79	6.29	7.44
	4H	5.81	6.27	6.74	7.19	8.36	5.42	5.88	6.35	6.80	7.97
	6H	6.26	6.66	7.21	7.60	8.77	5.88	6.27	6.83	7.21	8.39
	8H	6.42	6.79	7.36	7.72	8.90	6.03	6.40	6.98	7.33	8.52
	12H	6.52	6.85	7.49	7.80	8.99	6.12	6.45	7.08	7.40	8.59
8H	4H	5.95	6.32	6.90	7.25	8.44	5.60	5.97	6.55	6.90	8.09
	6H	6.54	6.83	7.51	7.81	9.00	6.19	6.48	7.16	7.46	8.65
	8H	6.78	7.04	7.76	8.01	9.21	6.43	6.69	7.41	7.66	8.86
	12H	6.97	7.20	7.95	8.16	9.41	6.60	6.82	7.57	7.78	9.04
12H	4H	5.93	6.25	6.89	7.21	8.40	5.58	5.91	6.55	6.86	8.05
	6H	6.56	6.82	7.54	7.79	8.99	6.22	6.48	7.20	7.45	8.65
	8H	6.83	7.06	7.81	8.02	9.27	6.49	6.72	7.47	7.68	8.93