

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: P854344

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854344
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-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

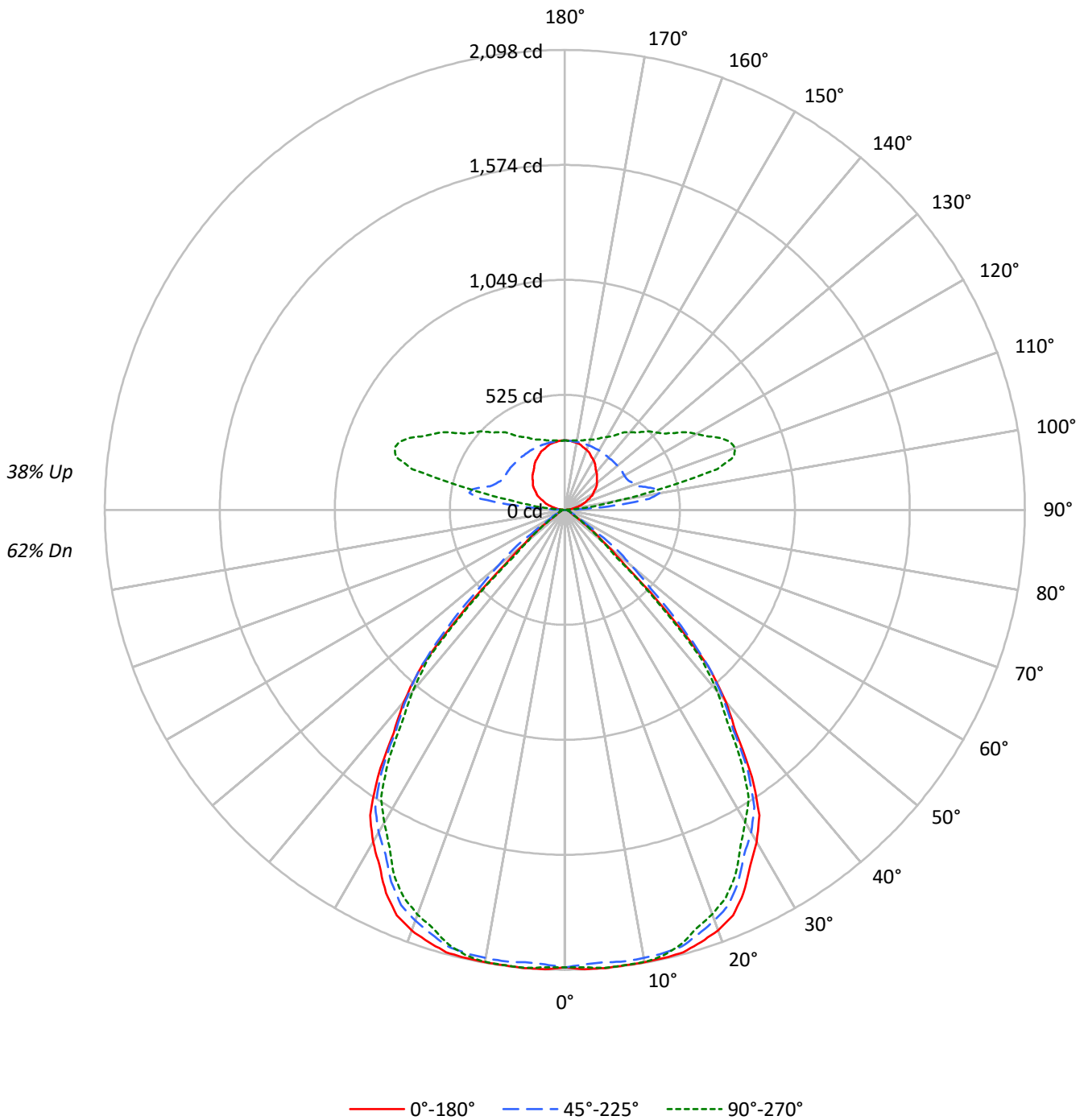
Lumens per Lamp: N/A
Luminaire Lumens: 5230.8 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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									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	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	62	62	62	62	62	62	62	62	62	62	62	62	62																
1	103	99	96	93	96	93	91	88	82	81	79	72	71	70	63	62	61	57	57	57	57	57	57	57	57	57	57	57	57	57																
2	96	89	84	80	90	84	80	76	75	72	69	66	64	62	59	57	55	52	52	52	52	52	52	52	52	52	52	52	52	52																
3	89	81	75	70	83	77	71	67	69	64	61	61	58	55	54	52	50	47	47	47	47	47	47	47	47	47	47	47	47	47																
4	83	73	67	61	78	70	64	59	63	58	54	56	53	50	50	47	45	42	42	42	42	42	42	42	42	42	42	42	42	42	42															
5	77	67	60	55	72	64	57	53	57	52	49	52	48	45	46	43	41	38	38	38	38	38	38	38	38	38	38	38	38	38	38															
6	72	61	54	49	68	58	52	47	53	48	44	48	44	41	43	40	37	35	35	35	35	35	35	35	35	35	35	35	35	35	35															
7	67	56	49	44	63	53	47	42	49	43	40	44	40	37	40	37	34	32	32	32	32	32	32	32	32	32	32	32	32	32	32															
8	63	51	44	40	59	49	43	38	45	40	36	41	37	34	37	34	31	29	29	29	29	29	29	29	29	29	29	29	29	29	29															
9	59	48	41	36	55	46	39	35	42	37	33	38	34	31	35	31	29	27	27	27	27	27	27	27	27	27	27	27	27	27	27															
10	55	44	37	33	52	42	36	32	39	34	30	36	31	28	32	29	27	25	25	25	25	25	25	25	25	25	25	25	25	25	25															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33700	33700	33700
5°	34007	33585	33990
10°	34351	34023	34334
15°	34922	34471	34302
20°	35087	34263	33747
25°	34367	33350	32797
30°	32608	31674	30667
35°	29325	28714	27670
40°	24040	23682	22776
45°	15034	17112	14118
50°	5880	9977	5378
55°	2902	4647	2874
60°	1356	2228	1227
65°	1223	1299	1146
70°	1180	1227	1133
75°	1185	1185	1061
80°	1116	1116	1023
85°	1112	926	926

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17112 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.6	3.8
10°-20°	583.5	11.2
20°-30°	862.7	16.5
30°-40°	892.7	17.1
40°-50°	536.9	10.3
50°-60°	128.5	2.5
60°-70°	35.1	0.7
70°-80°	19.6	0.4
80°-90°	6.6	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°	1645.8	31.5
0°-40°	2538.4	48.5
0°-60°	3203.9	61.3
0°-90°	3265.2	62.4
90°-120°	918.0	17.6
90°-150°	1700.0	32.5
90°-180°	1966.0	37.6
0°-180°	5230.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2087	2087	2087	2087	2087	
5°	2098	2091	2072	2100	2097	200
15°	2089	2105	2062	2062	2052	589
25°	1929	1945	1872	1852	1841	882
35°	1488	1486	1457	1423	1404	913
45°	658	747	749	712	618	509
55°	103	116	165	110	102	103
65°	32	33	34	32	30	32
75°	19	19	19	18	17	20
85°	6	6	5	5	5	6
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°	2087.2	2087.2	2087.2	2087.2	2087.2
2.5°	2097.6	2092.1	2075.2	2092.7	2088.8
5°	2098.2	2091.3	2072.2	2100.1	2097.2
7.5°	2096.0	2093.0	2078.4	2099.5	2095.0
10°	2095.2	2096.1	2075.2	2097.1	2094.2
12.5°	2094.4	2102.4	2072.0	2089.0	2082.2
15°	2089.2	2104.8	2062.2	2061.9	2052.1
17.5°	2067.0	2085.5	2028.5	2012.9	2000.9
20°	2042.1	2060.7	1994.1	1969.0	1964.1
22.5°	2002.9	2023.1	1951.7	1924.1	1916.1
25°	1929.1	1944.7	1872.0	1851.8	1841.0
27.5°	1830.6	1839.2	1771.0	1747.8	1733.0
30°	1749.0	1752.9	1698.9	1668.4	1644.9
32.5°	1652.1	1656.0	1608.5	1579.7	1560.9
35°	1487.8	1485.9	1456.8	1423.4	1403.8
37.5°	1282.3	1285.1	1262.1	1235.6	1215.9
40°	1140.6	1142.6	1123.6	1085.5	1080.6
42.5°	967.7	997.1	971.5	941.8	918.9
45°	658.4	747.4	749.4	712.3	618.3
47.5°	371.8	473.2	531.7	425.0	311.0
50°	234.1	302.6	397.2	252.3	214.1
52.5°	166.1	200.9	299.6	177.4	157.3
55°	103.1	115.8	165.1	109.9	102.1
57.5°	61.2	74.3	93.9	74.4	62.0
60°	42.0	52.8	69.0	48.8	38.0
62.5°	36.4	40.9	54.6	38.5	34.8
65°	32.0	33.0	34.0	32.0	30.0
67.5°	28.2	29.2	28.4	28.2	26.4
70°	25.0	26.0	26.0	25.0	24.0
72.5°	22.6	23.6	22.8	22.6	20.8
75°	19.0	19.0	19.0	18.0	17.0
77.5°	14.4	15.4	14.4	14.4	13.4
80°	12.0	13.0	12.0	12.0	11.0
82.5°	9.6	9.8	9.6	9.6	8.6
85°	6.0	6.0	5.0	5.0	5.0
87.5°	1.6	2.6	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	6.27	7.06	7.14	7.93	9.02	5.92	6.71	6.80	7.59	8.68
	3H	6.77	7.47	7.66	8.35	9.47	6.43	7.13	7.32	8.02	9.14
	4H	7.03	7.69	7.94	8.58	9.71	6.68	7.33	7.58	8.22	9.36
	6H	7.27	7.87	8.18	8.76	9.91	6.89	7.49	7.80	8.38	9.53
	8H	7.35	7.92	8.27	8.83	9.97	6.95	7.52	7.88	8.43	9.58
	12H	7.40	7.94	8.32	8.84	10.01	6.98	7.53	7.91	8.43	9.60
4H	2H	6.28	6.93	7.19	7.82	8.96	5.96	6.62	6.88	7.51	8.64
	3H	6.99	7.53	7.91	8.45	9.60	6.69	7.23	7.61	8.15	9.30
	4H	7.39	7.88	8.32	8.80	9.97	7.07	7.56	8.00	8.47	9.65
	6H	7.77	8.19	8.71	9.13	10.31	7.42	7.83	8.36	8.77	9.95
	8H	7.91	8.30	8.86	9.24	10.42	7.54	7.93	8.48	8.86	10.04
	12H	8.01	8.36	8.97	9.31	10.50	7.60	7.95	8.56	8.90	10.09
8H	4H	7.48	7.87	8.42	8.80	9.99	7.18	7.57	8.12	8.50	9.69
	6H	7.99	8.30	8.95	9.28	10.47	7.65	7.97	8.62	8.95	10.13
	8H	8.21	8.49	9.19	9.46	10.66	7.85	8.13	8.83	9.10	10.30
	12H	8.39	8.64	9.36	9.59	10.85	7.98	8.23	8.96	9.19	10.44
12H	4H	7.45	7.80	8.41	8.75	9.94	7.16	7.51	8.12	8.46	9.65
	6H	8.00	8.28	8.98	9.25	10.45	7.68	7.96	8.66	8.93	10.13
	8H	8.26	8.50	9.23	9.46	10.72	7.90	8.15	8.88	9.11	10.36