

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: P853525

Luminaire Tested: SQ2-BBM-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853525
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

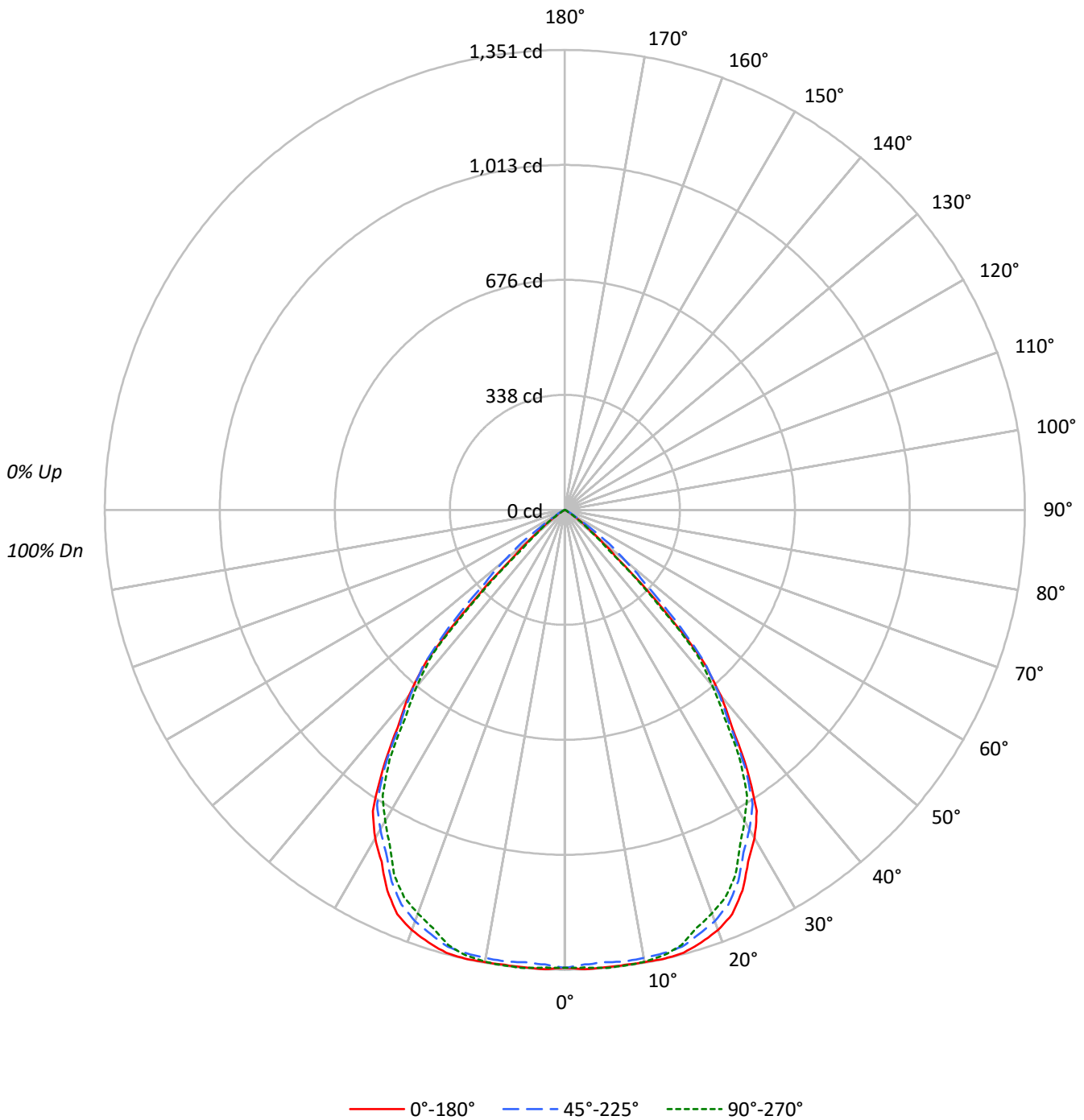
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2008.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 18.1
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	60	58
7	78	67	61	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21716	21716	21716
5°	21864	21621	21896
10°	22117	21920	22100
15°	22516	22215	22114
20°	22577	22096	21684
25°	21984	21449	21111
30°	20769	20210	19669
35°	18410	18193	17680
40°	15028	14817	14227
45°	8859	10458	8243
50°	2989	5827	2663
55°	1013	2083	1070
60°	97	614	32
65°	0	38	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10458 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.5	6.4
10°-20°	376.2	18.7
20°-30°	553.6	27.6
30°-40°	565.6	28.2
40°-50°	325.2	16.2
50°-60°	56.9	2.8
60°-70°	2.1	0.1
70°-80°	0.0	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1058.3	52.7
0°-40°	1623.9	80.9
0°-60°	2005.9	99.9
0°-90°	2008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2008.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1345	1345	1345	1345	1345	
5°	1349	1346	1334	1353	1351	129
15°	1347	1359	1329	1330	1323	379
25°	1234	1245	1204	1191	1185	564
35°	934	939	923	908	897	576
45°	388	452	458	434	361	303
55°	36	43	74	42	38	41
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1345.0	1345.0	1345.0	1345.0	1345.0
2.5°	1350.6	1347.5	1337.0	1348.9	1345.8
5°	1349.0	1346.1	1334.0	1353.0	1351.0
7.5°	1348.2	1345.9	1337.8	1354.3	1350.4
10°	1349.0	1349.0	1337.0	1351.9	1348.0
12.5°	1350.6	1354.5	1334.6	1346.3	1340.8
15°	1347.0	1358.7	1329.0	1329.8	1323.0
17.5°	1332.4	1348.2	1307.6	1298.0	1287.6
20°	1314.0	1330.6	1286.0	1270.8	1262.0
22.5°	1286.0	1301.8	1254.8	1242.0	1232.4
25°	1234.0	1244.8	1204.0	1190.9	1185.0
27.5°	1166.0	1171.5	1136.0	1122.4	1112.6
30°	1114.0	1114.0	1084.0	1068.7	1055.0
32.5°	1049.2	1046.1	1026.4	1008.7	995.8
35°	934.0	938.9	923.0	907.8	897.0
37.5°	806.6	811.3	795.0	777.6	770.2
40°	713.0	716.9	703.0	684.8	675.0
42.5°	597.8	618.9	606.2	586.3	573.4
45°	388.0	451.6	458.0	434.3	361.0
47.5°	202.2	268.7	317.6	242.6	170.0
50°	119.0	162.0	232.0	132.4	106.0
52.5°	76.6	95.4	163.2	84.7	71.6
55°	36.0	42.8	74.0	41.9	38.0
57.5°	13.4	20.0	33.4	20.3	14.6
60°	3.0	8.9	19.0	5.9	1.0
62.5°	0.6	2.6	11.0	1.2	0.2
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

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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	2.73	3.86	3.09	4.17	4.49	2.32	3.45	2.69	3.76	4.08
	3H	2.56	3.55	2.94	3.88	4.25	2.15	3.14	2.53	3.47	3.84
	4H	2.47	3.39	2.88	3.74	4.13	2.06	2.98	2.47	3.33	3.72
	6H	2.37	3.21	2.79	3.58	3.98	1.97	2.80	2.38	3.18	3.57
	8H	2.32	3.11	2.76	3.50	3.91	1.92	2.70	2.35	3.09	3.50
	12H	2.27	3.02	2.70	3.40	3.83	1.86	2.61	2.30	3.00	3.43
4H	2H	2.48	3.39	2.89	3.75	4.13	2.07	2.99	2.48	3.34	3.73
	3H	2.31	3.04	2.72	3.45	3.85	1.90	2.63	2.31	3.04	3.45
	4H	2.20	2.85	2.63	3.27	3.72	1.79	2.44	2.23	2.86	3.31
	6H	2.10	2.65	2.56	3.10	3.58	1.69	2.25	2.16	2.70	3.17
	8H	2.03	2.55	2.50	3.00	3.47	1.62	2.14	2.10	2.59	3.07
	12H	1.97	2.42	2.46	2.91	3.39	1.56	2.02	2.05	2.50	2.98
8H	4H	2.03	2.55	2.50	3.00	3.47	1.62	2.14	2.10	2.59	3.07
	6H	1.91	2.33	2.41	2.83	3.31	1.50	1.92	2.01	2.42	2.91
	8H	1.83	2.21	2.36	2.73	3.23	1.43	1.80	1.95	2.32	2.82
	12H	1.77	2.11	2.29	2.61	3.18	1.37	1.70	1.89	2.20	2.78
12H	4H	1.97	2.42	2.46	2.91	3.39	1.56	2.02	2.05	2.50	2.98
	6H	1.83	2.21	2.36	2.73	3.23	1.43	1.80	1.96	2.32	2.82
	8H	1.77	2.11	2.29	2.61	3.18	1.37	1.70	1.89	2.20	2.78