

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: P853501

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853501
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-050U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

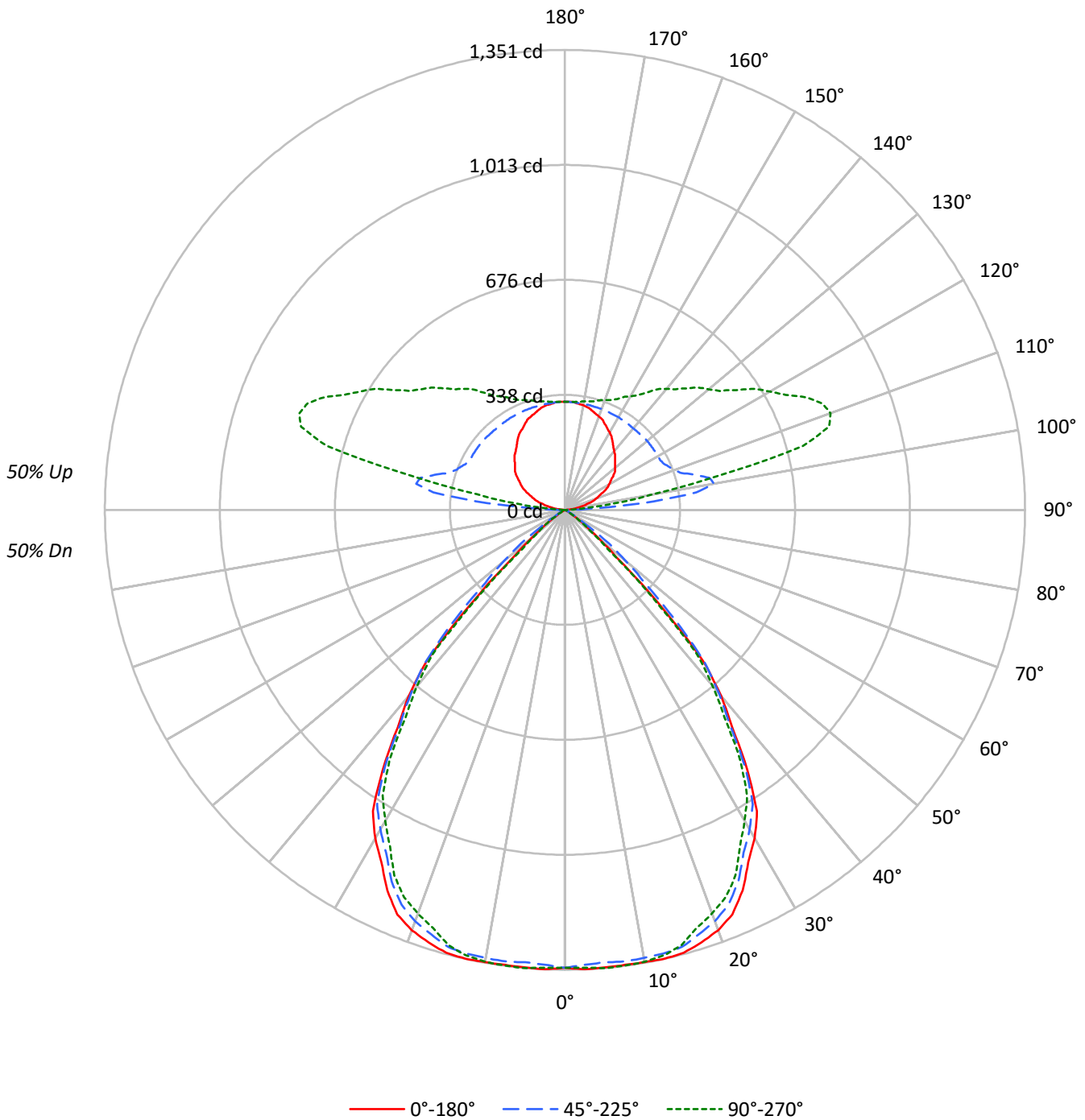
Lumens per Lamp: N/A
Luminaire Lumens: 3983.2 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.9
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	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50
1	100	96	93	90	92	89	87	84	76	74	73	64	63	62	53	52	52	46
2	93	87	82	77	86	81	76	73	69	66	64	59	57	55	49	48	47	42
3	86	78	72	67	80	73	68	63	63	59	56	54	51	49	46	44	42	39
4	80	71	64	59	74	66	60	56	58	53	50	50	47	44	42	40	38	35
5	74	64	57	52	69	60	54	49	53	48	44	46	42	40	39	37	35	32
6	69	58	51	46	64	55	49	44	48	44	40	42	39	36	36	34	32	29
7	64	53	46	41	60	50	44	40	44	40	36	39	35	33	34	31	29	27
8	60	49	42	37	56	46	40	36	41	36	33	36	32	30	32	29	27	25
9	56	45	38	34	52	43	37	33	38	33	30	34	30	27	29	27	25	23
10	53	42	35	31	49	40	34	30	35	31	27	31	28	25	28	25	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21718	21718	21718
5°	21866	21622	21898
10°	22118	21922	22102
15°	22517	22216	22116
20°	22579	22098	21685
25°	21985	21451	21113
30°	20771	20212	19671
35°	18412	18195	17682
40°	15030	14819	14229
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	3.2
10°-20°	376.2	9.4
20°-30°	553.6	13.9
30°-40°	565.7	14.2
40°-50°	325.2	8.2
50°-60°	56.9	1.4
60°-70°	2.1	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	126.6	3.2
100°-110°	401.7	10.1
110°-120°	393.9	9.9
120°-130°	320.5	8.0
130°-140°	261.3	6.6
140°-150°	203.8	5.1
150°-160°	146.8	3.7
160°-170°	89.7	2.3
170°-180°	30.3	0.8
0°-30°	1058.4	26.6
0°-40°	1624.0	40.8
0°-60°	2006.1	50.4
0°-90°	2008.7	50.4
90°-120°	922.2	23.2
90°-150°	1707.8	42.9
90°-180°	1975.0	49.6
0°-180°	3983.2	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	1	3	3	3	1
95°	17	51	230	85	55	20
105°	70	98	396	754	723	74
115°	125	148	320	665	782	123
125°	173	194	315	521	614	154
135°	209	230	313	448	505	161
145°	244	263	313	387	421	153
155°	278	288	314	345	359	128
165°	303	306	315	327	330	85
175°	317	316	317	319	318	30
180°	318	318	318	318	318	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1345.1	1345.1	1345.1	1345.1	1345.1
2.5°	1350.7	1347.6	1337.1	1349.1	1345.9
5°	1349.1	1346.2	1334.1	1353.1	1351.1
7.5°	1348.3	1346.0	1337.9	1354.4	1350.5
10°	1349.1	1349.1	1337.1	1352.0	1348.1
12.5°	1350.7	1354.6	1334.7	1346.4	1340.9
15°	1347.1	1358.9	1329.1	1330.0	1323.1
17.5°	1332.5	1348.4	1307.7	1298.1	1287.7
20°	1314.1	1330.7	1286.1	1270.9	1262.1
22.5°	1286.1	1302.0	1254.9	1242.1	1232.5
25°	1234.1	1244.9	1204.1	1191.0	1185.1
27.5°	1166.1	1171.6	1136.1	1122.5	1112.7
30°	1114.1	1114.1	1084.1	1068.8	1055.1
32.5°	1049.3	1046.2	1026.5	1008.8	995.9
35°	934.1	939.0	923.1	907.8	897.1
37.5°	806.7	811.4	795.1	777.7	770.3
40°	713.1	717.0	703.1	684.8	675.1
42.5°	597.9	619.0	606.3	586.4	573.5
45°	388.0	451.6	458.0	434.4	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	20.1	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	0.2	0.6	0.6	0.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6
95°	17.0	51.2	230.0	85.3	55.0
97.5°	31.6	66.4	389.6	243.4	149.4
100°	42.0	75.2	444.0	404.7	263.0
102.5°	53.2	84.9	434.4	594.4	455.0
105°	70.0	98.3	396.0	754.2	722.9
107.5°	86.8	113.0	359.4	770.9	813.1
110°	98.0	123.4	341.0	751.7	829.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	109.2	133.0	330.6	718.6	817.9
115°	125.0	148.5	320.0	664.6	781.9
117.5°	140.4	162.7	315.8	612.6	730.9
120°	150.0	171.5	315.0	580.5	694.9
122.5°	159.6	180.3	315.0	554.8	661.3
125°	173.0	193.5	315.0	521.1	613.9
127.5°	184.8	204.5	315.0	495.0	574.1
130°	192.0	212.5	315.0	479.6	550.9
132.5°	199.2	219.7	314.2	467.4	531.8
135°	209.0	229.5	313.0	448.2	505.0
137.5°	218.6	240.1	312.8	429.9	480.6
140°	225.0	246.5	312.0	417.0	463.0
142.5°	233.0	253.7	312.8	404.1	447.0
145°	244.0	262.6	313.0	386.7	421.0
147.5°	255.0	270.8	313.2	371.4	399.4
150°	263.0	275.7	314.0	362.5	385.0
152.5°	269.4	280.5	314.0	355.2	373.8
155°	278.0	287.8	314.0	345.3	359.0
157.5°	287.2	293.8	315.0	339.2	348.6
160°	292.0	297.8	315.0	335.1	343.0
162.5°	296.8	301.1	315.0	331.9	337.4
165°	303.0	305.9	315.0	327.0	330.0
167.5°	308.8	309.6	316.0	323.6	326.2
170°	312.0	312.0	316.0	322.0	323.0
172.5°	313.6	314.4	316.0	320.4	320.6
175°	317.0	316.0	317.0	318.9	318.0
177.5°	318.0	317.2	317.2	318.7	317.2
180°	318.0	318.0	318.0	318.0	318.0

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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	0.00	0.00	0.00	0.21	1.49	0.00	0.00	0.00	0.00	1.08
	3H	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.84
	4H	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.71
	6H	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.56
	8H	0.00	0.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.49
	12H	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.41
4H	2H	0.00	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.72
	3H	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.45
	4H	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.31
	6H	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.16
	8H	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.07
	12H	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.07
	6H	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00