

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: P853489

Luminaire Tested: SQ2-BBM-025U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853489
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-025U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

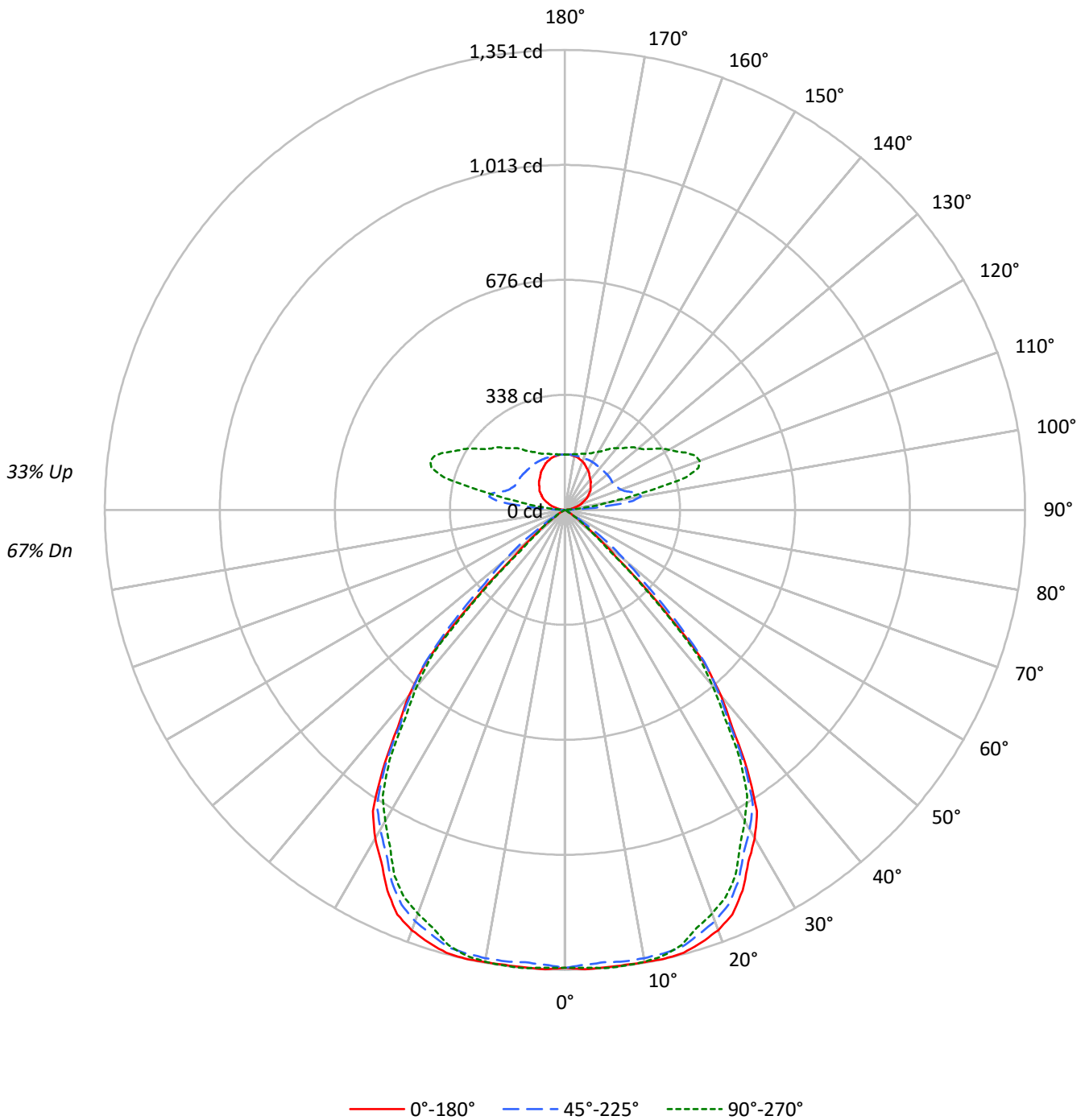
Lumens per Lamp: N/A
Luminaire Lumens: 3020.0 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.5
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	50	30	10	0	
RCR																						
0	111	111	111	111	105	105	105	105	93	93	93	81	81	81	71	71	71	67	67	67	67	
1	104	101	98	95	98	95	93	90	85	83	81	76	74	73	67	66	65	61	61	61	61	
2	97	91	86	82	92	87	82	79	78	75	72	70	68	66	62	61	59	56	56	56	56	
3	91	83	77	72	86	79	74	69	71	67	64	64	61	59	58	56	54	51	51	51	51	
4	84	75	69	64	80	72	66	62	65	61	57	59	56	53	54	51	49	46	46	46	46	
5	79	69	62	57	75	66	60	55	60	55	52	55	51	48	50	47	45	42	42	42	42	
6	73	63	56	51	70	60	54	50	55	50	47	51	47	44	46	43	41	39	39	39	39	
7	69	58	51	46	65	56	49	45	51	46	42	47	43	40	43	40	37	35	35	35	35	
8	64	53	47	42	61	51	45	41	47	42	39	44	40	36	40	37	34	32	32	32	32	
9	60	49	43	38	57	48	41	37	44	39	35	41	37	34	38	34	32	30	30	30	30	
10	57	46	39	35	54	44	38	34	41	36	33	38	34	31	35	32	29	28	28	28	28	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21719	21719	21719
5°	21867	21624	21900
10°	22120	21923	22104
15°	22519	22218	22118
20°	22581	22100	21687
25°	21987	21453	21114
30°	20773	20213	19673
35°	18413	18197	17682
40°	15030	14819	14229
45°	8862	10460	8245
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: 10460 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.5	4.3
10°-20°	376.2	12.5
20°-30°	553.7	18.3
30°-40°	565.7	18.7
40°-50°	325.2	10.8
50°-60°	56.9	1.9
60°-70°	2.1	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	65.9	2.2
100°-110°	205.1	6.8
110°-120°	200.7	6.6
120°-130°	163.8	5.4
130°-140°	134.0	4.4
140°-150°	104.6	3.5
150°-160°	75.5	2.5
160°-170°	46.1	1.5
170°-180°	15.6	0.5
0°-30°	1058.5	35.0
0°-40°	1624.1	53.8
0°-60°	2006.2	66.4
0°-90°	2008.8	66.5
90°-120°	471.7	15.6
90°-150°	874.1	28.9
90°-180°	1011.0	33.5
0°-180°	3020.0	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	1	3	3	3	0
95°	9	27	121	45	29	10
105°	36	51	202	386	368	38
115°	64	76	164	338	396	63
125°	89	99	162	266	312	79
135°	107	119	161	230	258	83
145°	125	135	161	198	216	79
155°	143	148	162	178	184	66
165°	157	158	163	168	170	44
175°	163	163	163	164	163	15
180°	163	163	163	163	163	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1345.2	1345.2	1345.2	1345.2	1345.2
2.5°	1350.8	1347.7	1337.2	1349.2	1346.0
5°	1349.2	1346.3	1334.2	1353.2	1351.2
7.5°	1348.4	1346.1	1338.0	1354.5	1350.6
10°	1349.2	1349.2	1337.2	1352.1	1348.2
12.5°	1350.8	1354.7	1334.8	1346.5	1341.0
15°	1347.2	1359.0	1329.2	1330.1	1323.2
17.5°	1332.6	1348.5	1307.8	1298.2	1287.8
20°	1314.2	1330.8	1286.2	1271.0	1262.2
22.5°	1286.2	1302.1	1255.0	1242.2	1232.6
25°	1234.2	1245.0	1204.2	1191.1	1185.2
27.5°	1166.2	1171.7	1136.2	1122.6	1112.8
30°	1114.2	1114.2	1084.2	1068.9	1055.2
32.5°	1049.4	1046.2	1026.6	1008.9	996.0
35°	934.2	939.0	923.2	907.9	897.1
37.5°	806.7	811.4	795.1	777.8	770.3
40°	713.1	717.0	703.1	684.9	675.1
42.5°	597.9	619.0	606.3	586.4	573.5
45°	388.1	451.6	458.1	434.4	361.1
47.5°	202.2	268.7	317.7	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	42.9	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°	3.2	11.2	38.2	12.5	10.2
95°	9.0	26.6	121.0	44.6	29.0
97.5°	16.4	34.6	200.3	124.7	78.6
100°	22.0	38.6	225.9	211.3	141.0
102.5°	27.6	43.4	221.1	301.8	236.9
105°	36.0	50.7	201.9	385.5	367.9
107.5°	44.4	58.1	183.5	391.9	411.3
110°	50.0	63.7	173.9	382.7	420.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	55.6	68.5	169.1	366.2	414.5
115°	64.0	75.7	163.9	338.2	395.9
117.5°	72.2	82.9	161.7	311.4	370.5
120°	77.0	87.7	160.9	296.2	352.9
122.5°	81.8	92.5	161.7	283.3	335.3
125°	89.0	98.7	161.9	266.0	311.9
127.5°	94.8	104.7	161.9	253.0	292.1
130°	98.0	108.7	161.9	245.7	280.9
132.5°	102.0	112.7	161.1	239.3	272.1
135°	107.0	118.7	160.9	229.6	257.9
137.5°	112.8	123.5	160.9	219.9	245.7
140°	116.0	126.7	160.9	213.5	236.9
142.5°	120.0	129.9	160.9	207.0	228.1
145°	125.0	134.7	160.9	198.3	215.9
147.5°	131.0	139.4	161.9	190.3	204.1
150°	135.0	141.8	161.9	186.2	196.9
152.5°	138.2	144.2	161.9	182.1	191.3
155°	143.0	147.8	161.9	178.1	183.9
157.5°	147.8	151.5	161.9	174.4	178.1
160°	151.0	153.9	161.9	172.0	174.9
162.5°	153.3	155.5	161.9	170.4	172.5
165°	156.9	157.9	162.9	168.0	169.9
167.5°	159.1	159.3	161.9	166.6	167.5
170°	159.9	160.9	161.9	165.0	165.9
172.5°	161.5	161.7	162.7	164.2	164.3
175°	162.9	162.9	162.9	163.9	162.9
177.5°	162.9	162.9	162.9	162.9	162.9
180°	162.9	162.9	162.9	162.9	162.9



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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	0.00	0.79	0.83	1.62	2.65	0.00	0.37	0.42	1.20	2.23
	3H	0.00	0.51	0.66	1.35	2.41	0.00	0.09	0.24	0.93	1.99
	4H	0.00	0.36	0.57	1.21	2.28	0.00	0.00	0.15	0.79	1.86
	6H	0.00	0.20	0.47	1.05	2.13	0.00	0.00	0.06	0.64	1.72
	8H	0.00	0.10	0.42	0.98	2.06	0.00	0.00	0.01	0.56	1.64
	12H	0.00	0.02	0.37	0.88	1.98	0.00	0.00	0.00	0.47	1.57
4H	2H	0.00	0.37	0.59	1.22	2.29	0.00	0.00	0.17	0.80	1.87
	3H	0.00	0.05	0.40	0.94	2.02	0.00	0.00	0.00	0.52	1.60
	4H	0.00	0.00	0.29	0.77	1.88	0.00	0.00	0.00	0.35	1.46
	6H	0.00	0.00	0.20	0.61	1.73	0.00	0.00	0.00	0.20	1.31
	8H	0.00	0.00	0.14	0.51	1.64	0.00	0.00	0.00	0.10	1.22
	12H	0.00	0.00	0.08	0.42	1.55	0.00	0.00	0.00	0.01	1.13
8H	4H	0.00	0.00	0.14	0.51	1.64	0.00	0.00	0.00	0.10	1.22
	6H	0.00	0.00	0.04	0.37	1.49	0.00	0.00	0.00	0.00	1.08
	8H	0.00	0.00	0.00	0.26	1.40	0.00	0.00	0.00	0.00	0.99
	12H	0.00	0.00	0.00	0.15	1.35	0.00	0.00	0.00	0.00	0.93
12H	4H	0.00	0.00	0.08	0.42	1.55	0.00	0.00	0.00	0.01	1.13
	6H	0.00	0.00	0.00	0.26	1.40	0.00	0.00	0.00	0.00	0.99
	8H	0.00	0.00	0.00	0.15	1.35	0.00	0.00	0.00	0.00	0.93