

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: P853514

Luminaire Tested: SQ2-BBM-075U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853514
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-075U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

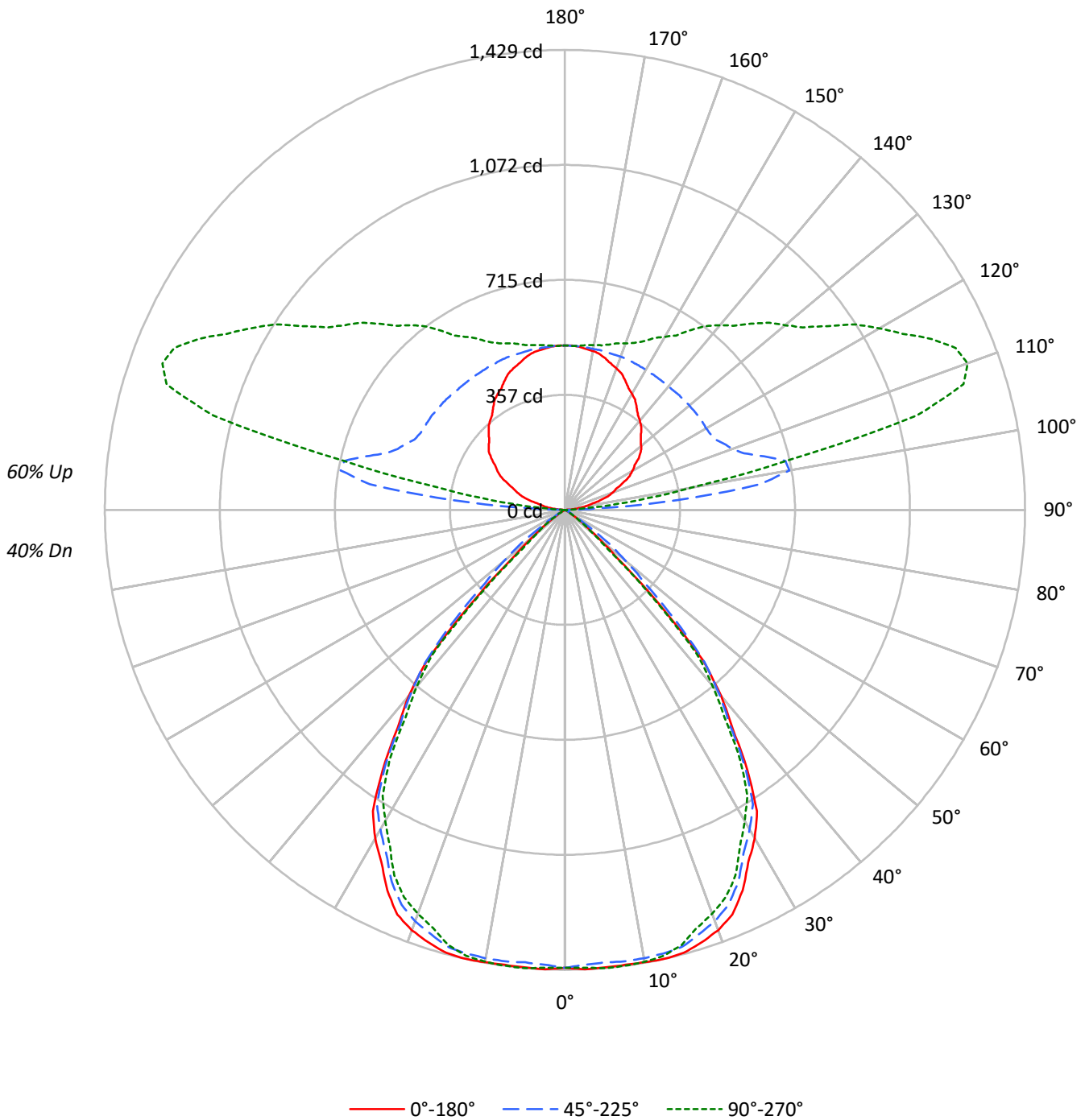
Lumens per Lamp: N/A
Luminaire Lumens: 5287.7 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 41.4
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	97	94	90	87	89	86	83	80	71	69	67	57	56	55	44	43	43	37
2	90	84	78	74	82	77	72	69	64	61	58	52	50	48	41	40	39	34
3	83	75	69	64	76	69	64	59	58	54	51	47	45	43	38	36	35	31
4	77	68	61	56	70	62	57	52	53	48	45	43	41	38	35	33	32	28
5	71	61	54	49	65	57	50	46	48	43	40	40	37	34	32	30	29	25
6	66	55	48	43	61	51	45	41	44	39	36	37	33	31	30	28	26	23
7	61	51	43	38	56	47	41	36	40	36	32	34	30	28	28	26	24	21
8	57	46	39	35	53	43	37	33	37	32	29	31	28	25	26	24	22	20
9	54	42	36	31	49	40	34	30	34	30	26	29	26	23	24	22	20	18
10	50	39	33	28	46	37	31	27	32	27	24	27	24	21	23	20	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22976	22976	22976
5°	23131	22874	23165
10°	23399	23191	23381
15°	23821	23502	23397
20°	23886	23376	22941
25°	23257	22693	22335
30°	21973	21380	20810
35°	19476	19247	18705
40°	15898	15675	15051
45°	9373	11063	8720
50°	3162	6164	2816
55°	1072	2204	1132
60°	103	649	36
65°	0	42	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: 11063 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	2.6
10°-20°	398.0	7.5
20°-30°	585.7	11.1
30°-40°	598.4	11.3
40°-50°	344.0	6.5
50°-60°	60.2	1.1
60°-70°	2.2	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	193.2	3.7
100°-110°	640.4	12.1
110°-120°	635.6	12.0
120°-130°	517.7	9.8
130°-140°	420.8	8.0
140°-150°	326.8	6.2
150°-160°	235.4	4.5
160°-170°	144.2	2.7
170°-180°	48.7	0.9
0°-30°	1119.6	21.2
0°-40°	1718.0	32.5
0°-60°	2122.2	40.1
0°-90°	2125.0	40.2
90°-120°	1469.2	27.8
90°-150°	2734.5	51.7
90°-180°	3163.0	59.8
0°-180°	5287.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1423	1423	1423	1423	1423	
5°	1427	1424	1411	1431	1429	136
15°	1425	1438	1406	1407	1400	401
25°	1306	1317	1274	1260	1254	597
35°	988	993	976	960	949	610
45°	410	478	484	460	382	321
55°	38	45	78	44	40	43
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	4	4	1
95°	28	81	350	125	84	31
105°	112	160	641	1209	1131	118
115°	200	239	516	1074	1256	198
125°	279	310	507	844	995	248
135°	334	368	502	724	818	259
145°	388	417	501	623	682	243
155°	443	459	504	557	578	204
165°	486	492	507	527	532	137
175°	509	509	510	513	512	48
180°	511	511	511	511	511	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1423.0	1423.0	1423.0	1423.0	1423.0
2.5°	1428.9	1425.6	1414.5	1427.1	1423.8
5°	1427.2	1424.1	1411.3	1431.4	1429.3
7.5°	1426.3	1423.9	1415.3	1432.8	1428.7
10°	1427.2	1427.2	1414.5	1430.3	1426.1
12.5°	1428.9	1433.0	1412.0	1424.3	1418.5
15°	1425.1	1437.5	1406.0	1406.9	1399.7
17.5°	1409.6	1426.4	1383.4	1373.2	1362.2
20°	1390.2	1407.7	1360.5	1344.5	1335.2
22.5°	1360.5	1377.3	1327.5	1314.0	1303.8
25°	1305.5	1316.9	1273.8	1259.9	1253.7
27.5°	1233.6	1239.4	1201.8	1187.4	1177.1
30°	1178.6	1178.6	1146.8	1130.6	1116.2
32.5°	1110.0	1106.7	1085.9	1067.2	1053.5
35°	988.1	993.3	976.5	960.4	949.0
37.5°	853.4	858.3	841.1	822.7	814.8
40°	754.3	758.5	743.7	724.5	714.1
42.5°	632.5	654.8	641.3	620.3	606.6
45°	410.5	477.7	484.5	459.5	381.9
47.5°	213.9	284.3	336.0	256.6	179.9
50°	125.9	171.4	245.4	140.1	112.1
52.5°	81.0	100.9	172.7	89.6	75.8
55°	38.1	45.3	78.3	44.3	40.2
57.5°	14.2	21.2	35.3	21.4	15.4
60°	3.2	9.4	20.1	6.2	1.1
62.5°	0.6	2.7	11.6	1.2	0.2
65°	0.0	0.0	1.1	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	0.8	0.8
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.5	32.7	96.2	31.2	26.2
95°	27.5	81.3	350.1	124.9	83.6
97.5°	50.6	106.8	611.1	356.4	225.3
100°	66.6	120.4	707.6	607.7	403.0
102.5°	84.4	136.5	701.6	928.7	701.6
105°	112.1	159.7	640.9	1209.2	1130.6
107.5°	140.5	182.9	582.8	1237.7	1297.5
110°	156.5	198.9	553.1	1209.5	1330.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	173.5	215.0	535.4	1159.5	1313.6
115°	199.9	239.2	516.1	1074.5	1256.5
117.5°	226.1	261.1	509.1	993.2	1184.1
120°	242.2	276.3	506.6	942.3	1127.4
122.5°	256.6	289.9	506.6	900.6	1071.6
125°	279.2	310.2	506.6	844.3	995.2
127.5°	297.8	328.2	505.3	801.7	930.7
130°	308.8	340.9	504.5	776.8	892.6
132.5°	319.0	351.9	503.6	756.3	860.5
135°	334.2	368.3	502.4	724.5	817.6
137.5°	350.7	383.6	501.1	693.8	775.9
140°	361.7	393.8	500.3	673.3	748.8
142.5°	371.9	403.1	501.1	652.8	720.0
145°	388.2	417.1	501.3	623.2	682.2
147.5°	405.7	429.9	501.5	598.1	642.0
150°	416.7	438.4	502.4	583.6	620.8
152.5°	426.9	447.8	503.2	571.6	601.4
155°	443.1	458.7	504.5	556.8	577.5
157.5°	459.0	471.0	505.8	546.3	561.0
160°	467.5	477.8	506.6	538.6	550.0
162.5°	475.9	483.8	506.6	533.5	542.4
165°	486.5	491.7	506.6	526.8	532.0
167.5°	496.2	498.9	507.7	520.8	523.5
170°	501.3	502.4	507.7	518.3	519.3
172.5°	504.7	505.7	508.5	515.7	515.9
175°	508.7	508.7	509.8	512.9	511.9
177.5°	510.8	510.8	510.0	511.6	510.0
180°	510.8	510.8	510.8	510.8	510.8



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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	0.00	0.78	0.00	0.00	0.00	0.00	0.37
	3H	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.13
	4H	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00