

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: P853502

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853502
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-940-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

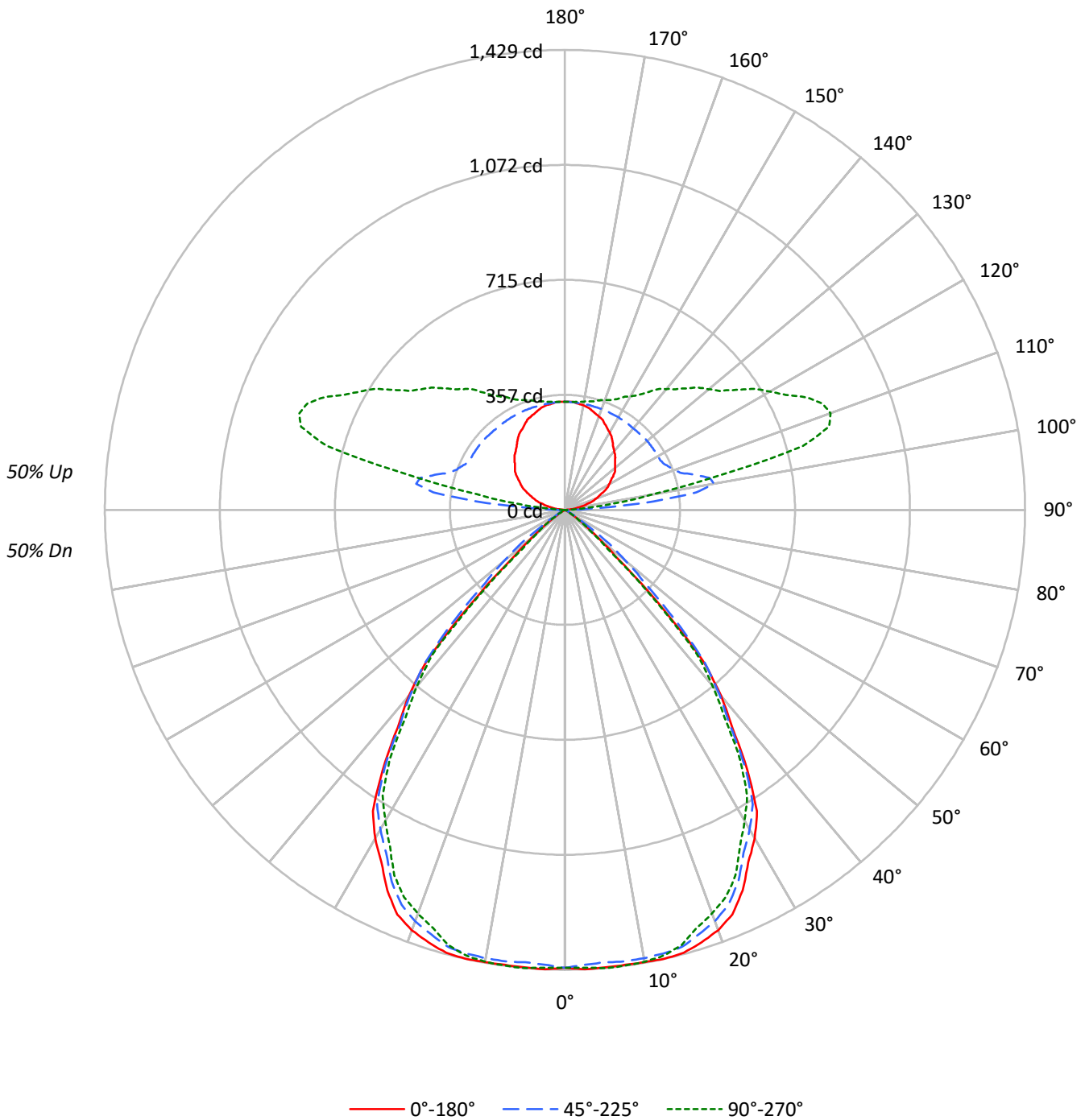
Lumens per Lamp: N/A
Luminaire Lumens: 4213.2 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	22972	22972	22972
5°	23130	22872	23164
10°	23397	23189	23379
15°	23818	23500	23395
20°	23883	23374	22938
25°	23256	22691	22333
30°	21971	21379	20806
35°	19474	19245	18703
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°	135.9	3.2
10°-20°	398.0	9.4
20°-30°	585.6	13.9
30°-40°	598.3	14.2
40°-50°	344.0	8.2
50°-60°	60.1	1.4
60°-70°	2.2	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	134.0	3.2
100°-110°	424.9	10.1
110°-120°	416.6	9.9
120°-130°	339.0	8.0
130°-140°	276.4	6.6
140°-150°	215.5	5.1
150°-160°	155.3	3.7
160°-170°	94.9	2.3
170°-180°	32.0	0.8
0°-30°	1119.5	26.6
0°-40°	1717.8	40.8
0°-60°	2122.0	50.4
0°-90°	2124.7	50.4
90°-120°	975.5	23.2
90°-150°	1806.5	42.9
90°-180°	2089.0	49.6
0°-180°	4213.2	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	1437	1406	1407	1400	401
25°	1305	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	3	3	1
95°	18	54	243	90	58	21
105°	74	104	419	798	765	78
115°	132	157	338	703	827	131
125°	183	205	333	551	649	163
135°	221	243	331	474	534	171
145°	258	278	331	409	445	162
155°	294	304	332	365	380	136
165°	320	324	333	346	349	90
175°	335	334	335	337	336	32
180°	336	336	336	336	336	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1422.8	1422.8	1422.8	1422.8	1422.8
2.5°	1428.8	1425.4	1414.4	1427.0	1423.7
5°	1427.1	1424.0	1411.2	1431.2	1429.2
7.5°	1426.2	1423.7	1415.2	1432.7	1428.5
10°	1427.1	1427.1	1414.4	1430.1	1426.0
12.5°	1428.8	1432.9	1411.8	1424.2	1418.4
15°	1424.9	1437.4	1405.9	1406.8	1399.6
17.5°	1409.5	1426.3	1383.3	1373.1	1362.1
20°	1390.0	1407.6	1360.4	1344.3	1335.0
22.5°	1360.4	1377.2	1327.4	1313.8	1303.7
25°	1305.4	1316.8	1273.7	1259.8	1253.6
27.5°	1233.5	1239.3	1201.7	1187.3	1177.0
30°	1178.5	1178.5	1146.7	1130.5	1116.0
32.5°	1109.9	1106.6	1085.8	1067.1	1053.4
35°	988.0	993.2	976.4	960.3	948.9
37.5°	853.3	858.2	841.0	822.6	814.8
40°	754.3	758.4	743.7	724.4	714.1
42.5°	632.4	654.7	641.3	620.2	606.6
45°	410.5	477.7	484.5	459.5	381.9
47.5°	213.9	284.2	336.0	256.6	179.8
50°	125.9	171.4	245.4	140.1	112.1
52.5°	81.0	100.9	172.6	89.6	75.7
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	0.6	0.6
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.5	75.1	25.0	17.6
95°	18.0	54.2	243.3	90.2	58.2
97.5°	33.4	70.2	412.1	257.5	158.0
100°	44.4	79.6	469.6	428.1	278.2
102.5°	56.3	89.8	459.5	628.7	481.2
105°	74.0	104.0	418.8	797.8	764.7
107.5°	91.8	119.5	380.1	815.4	860.1
110°	103.7	130.5	360.7	795.1	877.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	115.5	140.7	349.7	760.1	865.2
115°	132.2	157.0	338.5	703.0	827.1
117.5°	148.5	172.1	334.0	648.0	773.2
120°	158.7	181.4	333.2	614.1	735.1
122.5°	168.8	190.7	333.2	586.8	699.5
125°	183.0	204.7	333.2	551.2	649.4
127.5°	195.5	216.3	333.2	523.5	607.3
130°	203.1	224.8	333.2	507.3	582.8
132.5°	210.7	232.4	332.3	494.4	562.5
135°	221.1	242.8	331.1	474.1	534.1
137.5°	231.2	254.0	330.8	454.7	508.3
140°	238.0	260.7	330.0	441.1	489.7
142.5°	246.4	268.4	330.8	427.5	472.8
145°	258.1	277.7	331.1	409.1	445.3
147.5°	269.7	286.5	331.3	392.9	422.4
150°	278.2	291.6	332.1	383.4	407.2
152.5°	284.9	296.7	332.1	375.7	395.4
155°	294.0	304.4	332.1	365.2	379.7
157.5°	303.8	310.8	333.2	358.8	368.7
160°	308.8	315.0	333.2	354.5	362.8
162.5°	313.9	318.5	333.2	351.1	356.9
165°	320.5	323.6	333.2	345.9	349.0
167.5°	326.6	327.4	334.2	342.3	345.0
170°	330.0	330.0	334.2	340.6	341.6
172.5°	331.7	332.5	334.2	338.9	339.1
175°	335.3	334.2	335.3	337.4	336.3
177.5°	336.3	335.5	335.5	337.1	335.5
180°	336.3	336.3	336.3	336.3	336.3



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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	0.41	1.69	0.00	0.00	0.00	0.00	1.27
	3H	0.00	0.00	0.00	0.14	1.44	0.00	0.00	0.00	0.00	1.03
	4H	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00	0.90
	6H	0.00	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.75
	8H	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.68
	12H	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	0.60
4H	2H	0.00	0.00	0.00	0.01	1.32	0.00	0.00	0.00	0.00	0.91
	3H	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.64
	4H	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.51
	6H	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.35
	8H	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.26
	12H	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.18
8H	4H	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.26
	6H	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.12
	8H	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.03
	12H	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.18
	6H	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.03
	8H	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00