

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: P853524

Luminaire Tested: SQ2-BBM-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853524
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-930-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

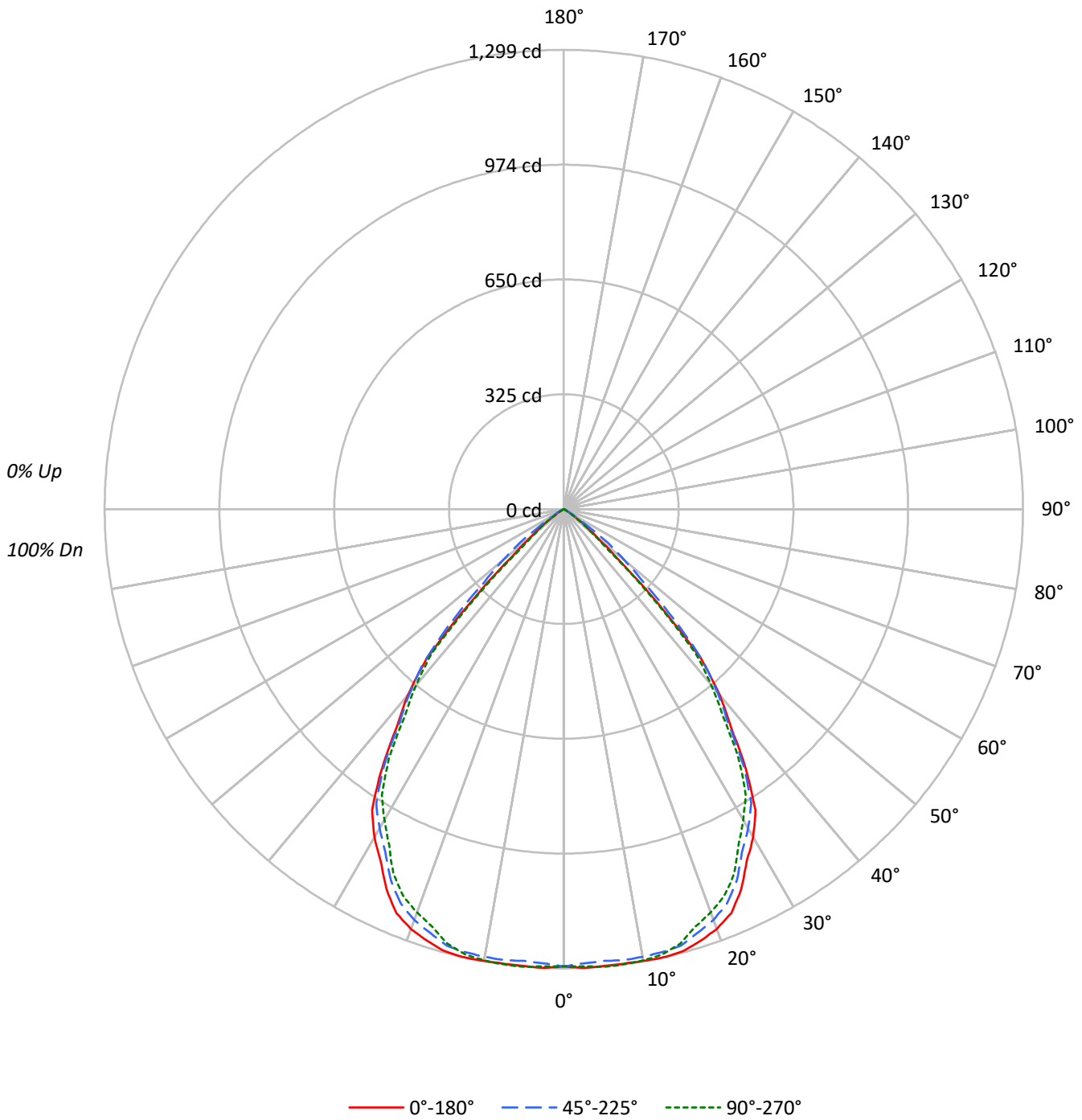
Lumens per Lamp: N/A
Luminaire Lumens: 1931.3 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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°	20886	20886	20886
5°	21029	20794	21060
10°	21272	21082	21256
15°	21655	21366	21270
20°	21715	21252	20856
25°	21145	20630	20304
30°	19975	19438	18918
35°	17706	17497	17004
40°	14455	14250	13683
45°	8522	10058	7928
50°	2876	5604	2562
55°	974	2004	1027
60°	94	591	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: 10058 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	6.4
10°-20°	361.8	18.7
20°-30°	532.4	27.6
30°-40°	544.0	28.2
40°-50°	312.7	16.2
50°-60°	54.7	2.8
60°-70°	2.0	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°	1017.9	52.7
0°-40°	1561.8	80.9
0°-60°	1929.3	99.9
0°-90°	1931.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1298	1295	1283	1301	1299	124
15°	1296	1307	1278	1279	1272	365
25°	1187	1197	1158	1145	1140	543
35°	898	903	888	873	863	554
45°	373	434	440	418	347	292
55°	35	41	71	40	36	39
65°	0	0	1	0	0	0
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°	1293.6	1293.6	1293.6	1293.6	1293.6
2.5°	1299.0	1296.0	1285.9	1297.4	1294.4
5°	1297.5	1294.6	1283.0	1301.3	1299.4
7.5°	1296.7	1294.4	1286.7	1302.6	1298.8
10°	1297.5	1297.5	1285.9	1300.3	1296.5
12.5°	1299.0	1302.8	1283.6	1294.8	1289.6
15°	1295.5	1306.8	1278.2	1279.0	1272.5
17.5°	1281.5	1296.7	1257.6	1248.4	1238.4
20°	1263.8	1279.8	1236.9	1222.3	1213.8
22.5°	1236.9	1252.1	1206.9	1194.5	1185.3
25°	1186.9	1197.2	1158.0	1145.4	1139.7
27.5°	1121.5	1126.7	1092.6	1079.5	1070.1
30°	1071.4	1071.4	1042.6	1027.9	1014.7
32.5°	1009.1	1006.1	987.2	970.2	957.8
35°	898.3	903.0	887.7	873.1	862.7
37.5°	775.8	780.3	764.6	747.9	740.8
40°	685.8	689.5	676.1	658.6	649.2
42.5°	575.0	595.3	583.0	563.9	551.5
45°	373.2	434.3	440.5	417.7	347.2
47.5°	194.5	258.4	305.5	233.3	163.5
50°	114.5	155.8	223.1	127.3	102.0
52.5°	73.7	91.7	157.0	81.5	68.9
55°	34.6	41.2	71.2	40.3	36.5
57.5°	12.9	19.3	32.1	19.5	14.0
60°	2.9	8.5	18.3	5.7	1.0
62.5°	0.6	2.5	10.6	1.1	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	2.59	3.72	2.95	4.03	4.35	2.19	3.32	2.55	3.63	3.95
	3H	2.42	3.41	2.80	3.74	4.11	2.02	3.01	2.40	3.34	3.71
	4H	2.33	3.25	2.74	3.60	3.99	1.93	2.85	2.34	3.20	3.59
	6H	2.24	3.07	2.65	3.44	3.84	1.83	2.67	2.25	3.04	3.44
	8H	2.18	2.97	2.62	3.36	3.77	1.78	2.57	2.22	2.96	3.37
	12H	2.13	2.88	2.57	3.27	3.70	1.73	2.48	2.16	2.86	3.30
4H	2H	2.34	3.26	2.75	3.61	4.00	1.94	2.86	2.35	3.21	3.60
	3H	2.17	2.90	2.58	3.31	3.72	1.77	2.50	2.18	2.91	3.32
	4H	2.06	2.71	2.50	3.13	3.58	1.66	2.31	2.10	2.73	3.18
	6H	1.96	2.52	2.43	2.97	3.44	1.56	2.12	2.03	2.57	3.04
	8H	1.89	2.41	2.36	2.86	3.33	1.49	2.01	1.96	2.46	2.93
	12H	1.83	2.28	2.32	2.77	3.25	1.43	1.88	1.92	2.37	2.85
8H	4H	1.89	2.41	2.36	2.86	3.33	1.49	2.01	1.96	2.46	2.93
	6H	1.77	2.19	2.28	2.69	3.17	1.37	1.79	1.88	2.29	2.77
	8H	1.69	2.07	2.22	2.59	3.09	1.29	1.67	1.82	2.19	2.69
	12H	1.64	1.97	2.16	2.47	3.05	1.24	1.57	1.76	2.07	2.65
12H	4H	1.83	2.28	2.32	2.77	3.25	1.43	1.88	1.92	2.37	2.85
	6H	1.69	2.07	2.22	2.59	3.09	1.29	1.67	1.82	2.19	2.69
	8H	1.64	1.97	2.16	2.47	3.05	1.24	1.57	1.76	2.07	2.65