

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: P853569

Luminaire Tested: SQ2-BBM-150U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853569
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-150U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

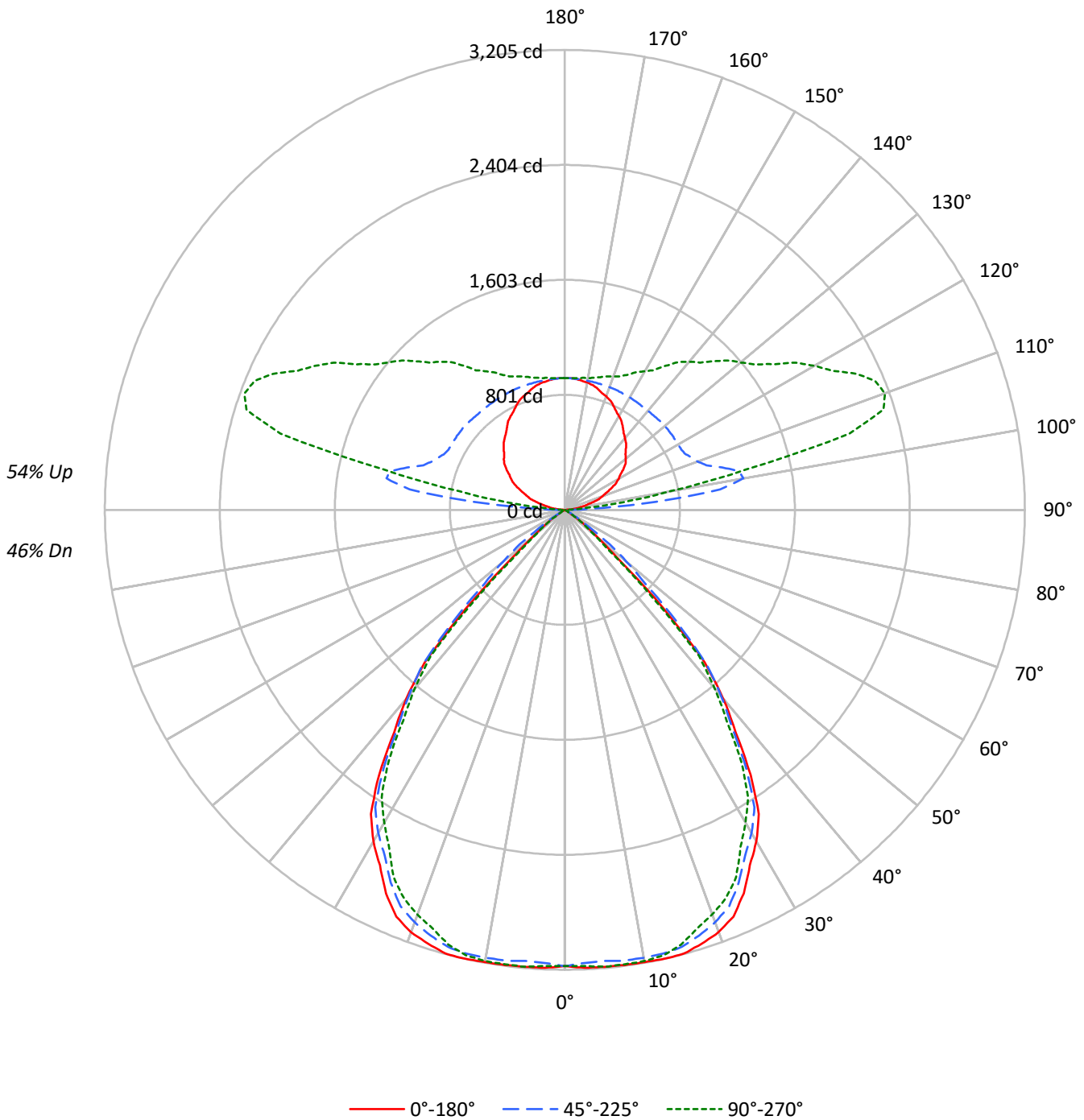
Lumens per Lamp: N/A
Luminaire Lumens: 10471.1 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.9
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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	99	95	92	89	91	88	85	82	74	72	70	61	60	59	49	48	48	42
2	91	85	80	76	84	79	75	71	67	64	61	56	54	52	45	44	43	38
3	85	77	71	66	78	71	66	62	61	57	54	51	48	46	42	40	39	35
4	78	69	62	57	72	64	59	54	55	51	48	47	44	41	39	37	35	32
5	73	63	56	50	67	58	52	48	51	46	42	43	40	37	36	34	32	29
6	68	57	50	45	62	53	47	43	46	42	38	40	36	34	34	31	29	27
7	63	52	45	40	58	49	43	38	43	38	34	37	33	30	31	29	27	24
8	59	48	41	36	54	45	39	34	39	34	31	34	30	28	29	26	25	22
9	55	44	37	33	51	41	35	31	36	32	28	32	28	25	27	24	23	21
10	52	41	34	30	48	38	32	28	34	29	26	29	26	23	25	23	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	51342	51342	51342
5°	51802	51164	51802
10°	52465	51960	52356
15°	53523	52704	52414
20°	53828	52574	51567
25°	52526	51070	50301
30°	49739	48485	46909
35°	44481	43438	42228
40°	36225	35698	34239
45°	22112	25051	19918
50°	7214	14021	6347
55°	2460	4949	2542
60°	187	1427	61
65°	38	73	0
70°	0	47	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25094 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.3	2.9
10°-20°	893.6	8.5
20°-30°	1320.6	12.6
30°-40°	1357.2	13.0
40°-50°	783.9	7.5
50°-60°	135.8	1.3
60°-70°	5.1	0.0
70°-80°	0.1	0.0
80°-90°	1.3	0.0
90°-100°	350.0	3.3
100°-110°	1146.0	10.9
110°-120°	1133.0	10.8
120°-130°	926.2	8.8
130°-140°	755.8	7.2
140°-150°	588.2	5.6
150°-160°	423.5	4.0
160°-170°	259.1	2.5
170°-180°	87.5	0.8
0°-30°	2518.5	24.1
0°-40°	3875.7	37.0
0°-60°	4795.4	45.8
0°-90°	4801.9	45.9
90°-120°	2629.1	25.1
90°-150°	4899.3	46.8
90°-180°	5670.0	54.1
0°-180°	10471.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3180	3180	3180	3180	3180	
5°	3196	3187	3157	3203	3196	305
15°	3202	3226	3153	3158	3136	902
25°	2948	2975	2867	2834	2824	1348
35°	2257	2258	2204	2170	2142	1388
45°	968	1099	1097	1039	872	740
55°	87	102	176	100	90	98
65°	1	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	2
95°	49	142	636	227	147	56
105°	199	284	1138	2161	2053	210
115°	359	429	924	1910	2242	354
125°	499	557	911	1506	1769	444
135°	601	665	904	1299	1464	465
145°	703	755	902	1117	1224	441
155°	802	828	907	1000	1038	369
165°	875	883	911	946	956	247
175°	915	915	916	922	920	87
180°	919	919	919	919	919	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3179.9	3179.9	3179.9	3179.9	3179.9
2.5°	3194.5	3185.5	3159.9	3189.0	3182.2
5°	3196.2	3186.8	3156.8	3202.8	3196.2
7.5°	3199.3	3193.5	3167.8	3203.9	3193.4
10°	3200.1	3201.0	3169.3	3200.9	3193.4
12.5°	3204.7	3213.9	3166.3	3191.5	3178.8
15°	3202.0	3225.5	3153.0	3158.3	3135.7
17.5°	3169.7	3203.5	3110.5	3087.8	3059.6
20°	3132.8	3166.6	3059.8	3029.4	3001.2
22.5°	3067.5	3104.3	2989.9	2956.4	2930.5
25°	2948.4	2974.7	2866.7	2833.8	2823.5
27.5°	2791.6	2801.0	2717.4	2674.0	2649.8
30°	2667.9	2666.0	2600.6	2550.8	2516.1
32.5°	2514.9	2524.3	2458.4	2411.7	2376.2
35°	2256.7	2257.6	2203.8	2169.6	2142.4
37.5°	1955.4	1950.7	1913.5	1867.4	1852.0
40°	1718.7	1725.3	1693.7	1641.4	1624.5
42.5°	1444.3	1487.7	1465.4	1403.9	1383.2
45°	968.4	1099.0	1097.1	1038.6	872.3
47.5°	495.5	659.0	757.2	593.1	397.9
50°	287.2	390.6	558.2	308.1	252.7
52.5°	182.0	231.2	396.8	200.2	168.1
55°	87.4	101.5	175.8	99.7	90.3
57.5°	31.9	47.5	78.0	48.5	34.2
60°	5.8	19.9	44.2	13.2	1.9
62.5°	1.9	5.5	25.7	3.4	1.2
65°	1.0	1.0	1.9	0.9	0.0
67.5°	0.0	0.9	1.0	0.0	0.0
70°	0.0	0.9	1.0	0.0	0.0
72.5°	0.0	0.2	0.2	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°	0.2	0.6	1.5	1.3	1.5
90°	0.9	2.8	7.6	6.6	7.6
92.5°	16.0	58.5	179.7	58.5	46.8
95°	49.1	142.3	636.3	226.7	147.3
97.5°	89.1	187.7	1091.7	660.4	409.3
100°	117.1	211.2	1263.1	1128.0	747.7
102.5°	148.8	240.7	1244.3	1662.1	1288.4
105°	199.2	284.1	1137.6	2161.3	2053.3
107.5°	248.9	326.8	1033.5	2208.0	2326.7
110°	281.3	357.0	983.7	2153.7	2374.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	312.3	385.8	953.5	2059.2	2341.8
115°	358.7	428.9	924.2	1909.8	2242.1
117.5°	403.9	469.4	913.1	1763.0	2100.5
120°	433.3	495.2	910.1	1677.5	2006.1
122.5°	459.8	520.1	910.1	1603.7	1908.7
125°	499.4	556.6	911.0	1506.1	1769.2
127.5°	533.0	591.4	909.9	1434.1	1663.0
130°	554.2	613.2	909.1	1390.6	1597.3
132.5°	573.0	633.6	906.9	1353.1	1540.7
135°	601.4	665.1	903.5	1299.0	1464.2
137.5°	631.2	694.3	901.4	1242.6	1391.9
140°	652.3	713.3	900.6	1206.9	1348.1
142.5°	673.5	730.7	900.6	1168.8	1296.8
145°	703.3	755.0	901.6	1117.4	1224.4
147.5°	734.7	777.7	902.9	1072.6	1153.4
150°	754.3	792.1	904.4	1046.6	1114.9
152.5°	773.9	807.3	905.2	1025.2	1081.7
155°	801.5	828.3	907.2	999.7	1038.5
157.5°	826.2	845.6	909.3	979.6	1007.7
160°	842.1	857.8	910.1	968.2	990.3
162.5°	855.7	868.4	910.1	959.0	975.2
165°	875.1	883.4	911.0	946.2	956.3
167.5°	891.6	895.6	912.1	936.2	941.8
170°	900.6	902.5	912.9	930.9	932.7
172.5°	907.4	908.5	915.2	927.1	927.4
175°	914.8	914.8	915.7	922.3	920.5
177.5°	918.6	917.8	917.1	921.5	918.6
180°	918.6	918.6	918.6	918.6	918.6



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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	0.99	1.68	2.02	2.69	4.03	0.60	1.29	1.63	2.30	3.64
	3H	0.80	1.41	1.83	2.43	3.79	0.41	1.01	1.44	2.03	3.40
	4H	0.69	1.26	1.74	2.29	3.66	0.30	0.87	1.35	1.89	3.27
	6H	0.58	1.11	1.64	2.13	3.51	0.19	0.71	1.24	1.74	3.12
	8H	0.52	1.02	1.58	2.06	3.44	0.13	0.63	1.19	1.67	3.04
	12H	0.46	0.93	1.52	1.97	3.36	0.07	0.54	1.13	1.57	2.97
4H	2H	0.70	1.27	1.75	2.29	3.66	0.31	0.88	1.36	1.90	3.27
	3H	0.50	0.97	1.56	2.02	3.40	0.11	0.58	1.16	1.63	3.01
	4H	0.38	0.81	1.45	1.86	3.26	0.00	0.42	1.06	1.46	2.87
	6H	0.27	0.64	1.35	1.70	3.11	0.00	0.25	0.95	1.31	2.72
	8H	0.21	0.55	1.28	1.61	3.02	0.00	0.16	0.89	1.22	2.63
	12H	0.14	0.44	1.22	1.52	2.93	0.00	0.05	0.83	1.12	2.54
8H	4H	0.21	0.55	1.28	1.61	3.02	0.00	0.16	0.89	1.22	2.63
	6H	0.09	0.37	1.18	1.47	2.88	0.00	0.00	0.79	1.08	2.49
	8H	0.03	0.28	1.13	1.36	2.79	0.00	0.00	0.74	0.97	2.40
	12H	0.00	0.18	1.06	1.26	2.73	0.00	0.00	0.67	0.86	2.34
12H	4H	0.14	0.44	1.22	1.52	2.93	0.00	0.05	0.83	1.12	2.54
	6H	0.03	0.28	1.13	1.36	2.79	0.00	0.00	0.74	0.97	2.40
	8H	0.00	0.18	1.06	1.25	2.73	0.00	0.00	0.67	0.86	2.34