

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: P853570

Luminaire Tested: SQ2-BBM-150U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853570
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-935-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

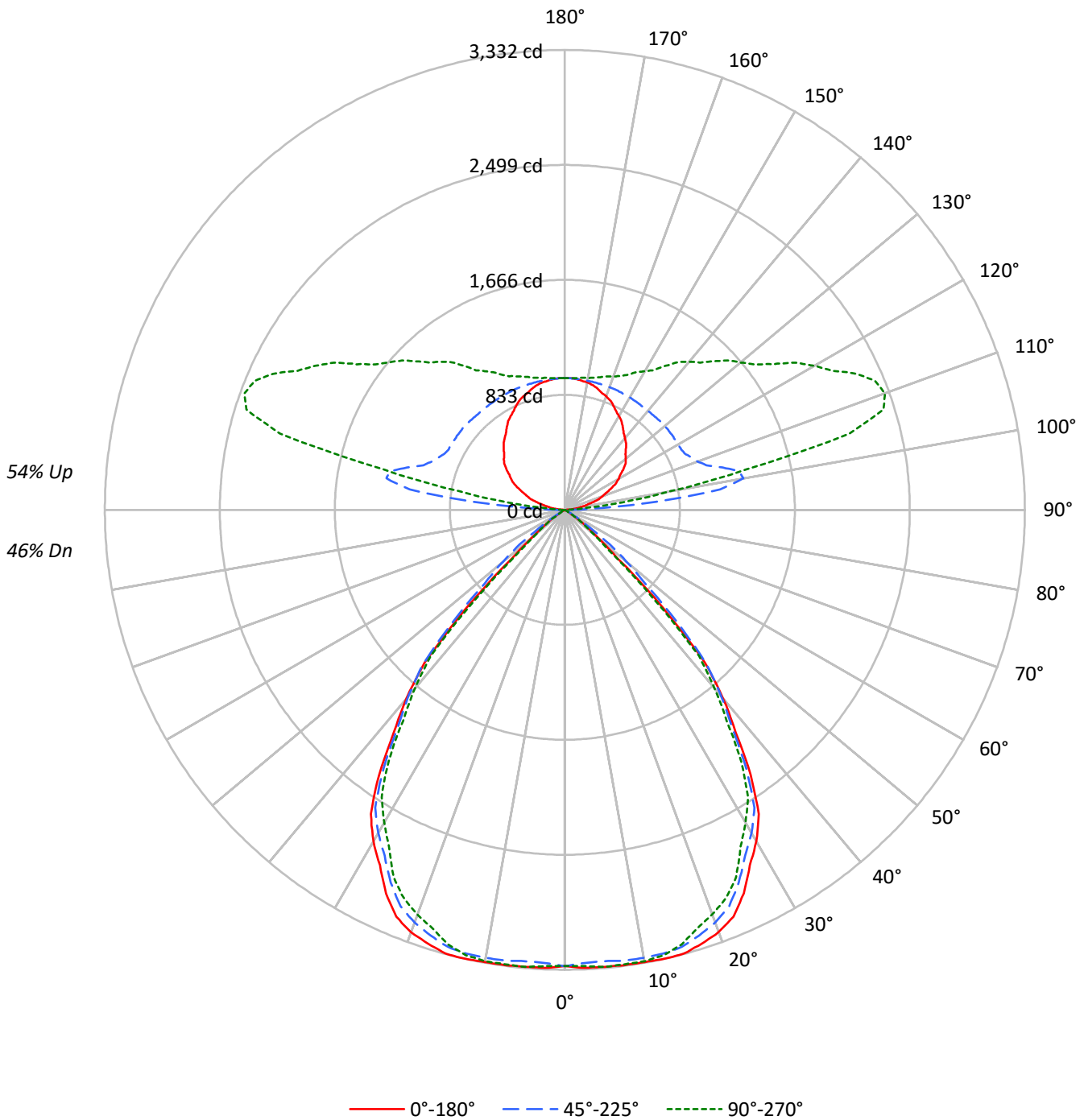
Lumens per Lamp: N/A
Luminaire Lumens: 10887.1 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	53381	53381	53381
5°	53861	53196	53861
10°	54549	54025	54434
15°	55649	54796	54497
20°	55967	54663	53615
25°	54612	53099	52298
30°	51714	50410	48772
35°	46247	45164	43903
40°	37664	37116	35601
45°	22989	26046	20710
50°	7503	14576	6599
55°	2559	5146	2643
60°	194	1482	65
65°	38	76	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: 26090 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.4	2.9
10°-20°	929.1	8.5
20°-30°	1373.0	12.6
30°-40°	1411.1	13.0
40°-50°	815.1	7.5
50°-60°	141.2	1.3
60°-70°	5.3	0.0
70°-80°	0.1	0.0
80°-90°	1.4	0.0
90°-100°	363.9	3.3
100°-110°	1191.6	10.9
110°-120°	1178.0	10.8
120°-130°	963.0	8.8
130°-140°	785.9	7.2
140°-150°	611.6	5.6
150°-160°	440.4	4.0
160°-170°	269.4	2.5
170°-180°	91.0	0.8
0°-30°	2618.5	24.1
0°-40°	4029.6	37.0
0°-60°	4985.9	45.8
0°-90°	4992.7	45.9
90°-120°	2733.5	25.1
90°-150°	5093.9	46.8
90°-180°	5895.0	54.1
0°-180°	10887.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3306	3306	3306	3306	3306	
5°	3323	3313	3282	3330	3323	317
15°	3329	3354	3278	3284	3260	938
25°	3066	3093	2981	2946	2936	1402
35°	2346	2347	2291	2256	2227	1444
45°	1007	1143	1141	1080	907	770
55°	91	106	183	104	94	102
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	3
95°	51	148	662	236	153	58
105°	207	295	1183	2247	2135	218
115°	373	446	961	1986	2331	368
125°	519	579	947	1566	1839	462
135°	625	692	939	1351	1522	484
145°	731	785	937	1162	1273	458
155°	833	861	943	1039	1080	384
165°	910	918	947	984	994	256
175°	951	951	952	959	957	90
180°	955	955	955	955	955	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3306.2	3306.2	3306.2	3306.2	3306.2
2.5°	3321.4	3312.0	3285.4	3315.6	3308.6
5°	3323.2	3313.4	3282.2	3330.0	3323.2
7.5°	3326.4	3320.3	3293.6	3331.1	3320.2
10°	3327.2	3328.2	3295.2	3328.0	3320.2
12.5°	3332.0	3341.6	3292.0	3318.3	3305.0
15°	3329.2	3353.6	3278.2	3283.7	3260.3
17.5°	3295.6	3330.8	3234.1	3210.5	3181.2
20°	3257.3	3292.4	3181.4	3149.7	3120.4
22.5°	3189.3	3227.6	3108.6	3073.9	3046.9
25°	3065.5	3092.8	2980.6	2946.4	2935.6
27.5°	2902.5	2912.2	2825.4	2780.2	2755.0
30°	2773.8	2771.9	2703.9	2652.1	2616.0
32.5°	2614.8	2624.6	2556.1	2507.5	2470.6
35°	2346.3	2347.3	2291.4	2255.8	2227.4
37.5°	2033.1	2028.2	1989.5	1941.6	1925.6
40°	1787.0	1793.8	1761.0	1706.6	1689.1
42.5°	1501.7	1546.8	1523.7	1459.6	1438.2
45°	1006.8	1142.6	1140.7	1079.8	907.0
47.5°	515.2	685.1	787.3	616.7	413.7
50°	298.7	406.1	580.3	320.3	262.7
52.5°	189.2	240.4	412.5	208.2	174.8
55°	90.9	105.5	182.8	103.7	93.9
57.5°	33.2	49.4	81.1	50.4	35.6
60°	6.0	20.6	45.9	13.7	2.0
62.5°	2.0	5.7	26.8	3.5	1.2
65°	1.0	1.0	2.0	1.0	0.0
67.5°	0.0	1.0	1.0	0.0	0.0
70°	0.0	1.0	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	1.6	1.4	1.6
90°	1.0	2.9	7.9	6.9	7.9
92.5°	16.7	60.8	186.9	60.8	48.7
95°	51.0	148.0	661.6	235.7	153.1
97.5°	92.7	195.2	1135.1	686.6	425.6
100°	121.7	219.6	1313.3	1172.8	777.4
102.5°	154.7	250.3	1293.7	1728.1	1339.6
105°	207.1	295.4	1182.8	2247.2	2134.9
107.5°	258.7	339.7	1074.6	2295.7	2419.1
110°	292.5	371.2	1022.8	2239.2	2468.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	324.7	401.1	991.4	2141.0	2434.8
115°	373.0	445.9	960.9	1985.7	2331.2
117.5°	419.9	488.0	949.4	1833.1	2183.9
120°	450.5	514.8	946.2	1744.1	2085.8
122.5°	478.0	540.8	946.2	1667.4	1984.5
125°	519.2	578.7	947.2	1565.9	1839.4
127.5°	554.2	614.8	946.0	1491.1	1729.1
130°	576.2	637.6	945.2	1445.8	1660.8
132.5°	595.8	658.8	942.9	1406.9	1601.9
135°	625.2	691.5	939.3	1350.6	1522.4
137.5°	656.3	721.9	937.2	1291.9	1447.2
140°	678.3	741.6	936.4	1254.8	1401.7
142.5°	700.2	759.7	936.4	1215.2	1348.3
145°	731.3	785.0	937.4	1161.7	1273.1
147.5°	763.8	808.6	938.8	1115.2	1199.3
150°	784.3	823.6	940.3	1088.2	1159.2
152.5°	804.7	839.4	941.1	1065.9	1124.7
155°	833.3	861.2	943.3	1039.4	1079.7
157.5°	859.1	879.2	945.4	1018.5	1047.7
160°	875.5	891.9	946.2	1006.6	1029.6
162.5°	889.7	902.9	946.2	997.0	1013.9
165°	909.9	918.5	947.2	983.8	994.3
167.5°	927.0	931.2	948.4	973.4	979.2
170°	936.4	938.3	949.2	967.9	969.8
172.5°	943.5	944.6	951.5	963.9	964.3
175°	951.1	951.1	952.1	958.9	957.0
177.5°	955.0	954.3	953.5	958.1	955.0
180°	955.0	955.0	955.0	955.0	955.0



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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	1.12	1.81	2.15	2.82	4.16	0.74	1.42	1.76	2.43	3.78
	3H	0.93	1.54	1.96	2.56	3.92	0.54	1.15	1.58	2.17	3.53
	4H	0.82	1.39	1.87	2.42	3.79	0.44	1.01	1.48	2.03	3.40
	6H	0.71	1.24	1.77	2.26	3.64	0.32	0.85	1.38	1.88	3.26
	8H	0.65	1.15	1.71	2.19	3.57	0.26	0.76	1.32	1.80	3.18
	12H	0.59	1.06	1.65	2.10	3.49	0.20	0.68	1.27	1.71	3.11
4H	2H	0.83	1.40	1.88	2.42	3.80	0.44	1.02	1.50	2.04	3.41
	3H	0.63	1.10	1.69	2.15	3.53	0.24	0.71	1.30	1.76	3.15
	4H	0.51	0.94	1.58	1.99	3.39	0.13	0.56	1.19	1.60	3.01
	6H	0.40	0.77	1.48	1.84	3.24	0.02	0.38	1.09	1.45	2.85
	8H	0.34	0.68	1.41	1.74	3.15	0.00	0.30	1.03	1.35	2.77
	12H	0.27	0.57	1.35	1.65	3.06	0.00	0.19	0.97	1.26	2.68
8H	4H	0.34	0.68	1.41	1.74	3.15	0.00	0.30	1.03	1.35	2.77
	6H	0.22	0.50	1.31	1.60	3.01	0.00	0.12	0.93	1.22	2.63
	8H	0.16	0.41	1.26	1.49	2.92	0.00	0.02	0.88	1.11	2.54
	12H	0.09	0.31	1.19	1.39	2.86	0.00	0.00	0.81	1.00	2.47
12H	4H	0.27	0.57	1.35	1.65	3.06	0.00	0.19	0.97	1.26	2.68
	6H	0.16	0.41	1.26	1.49	2.92	0.00	0.02	0.88	1.11	2.54
	8H	0.09	0.31	1.19	1.39	2.86	0.00	0.00	0.81	1.00	2.47