

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: P853571

Luminaire Tested: SQ2-BBM-150U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853571
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-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

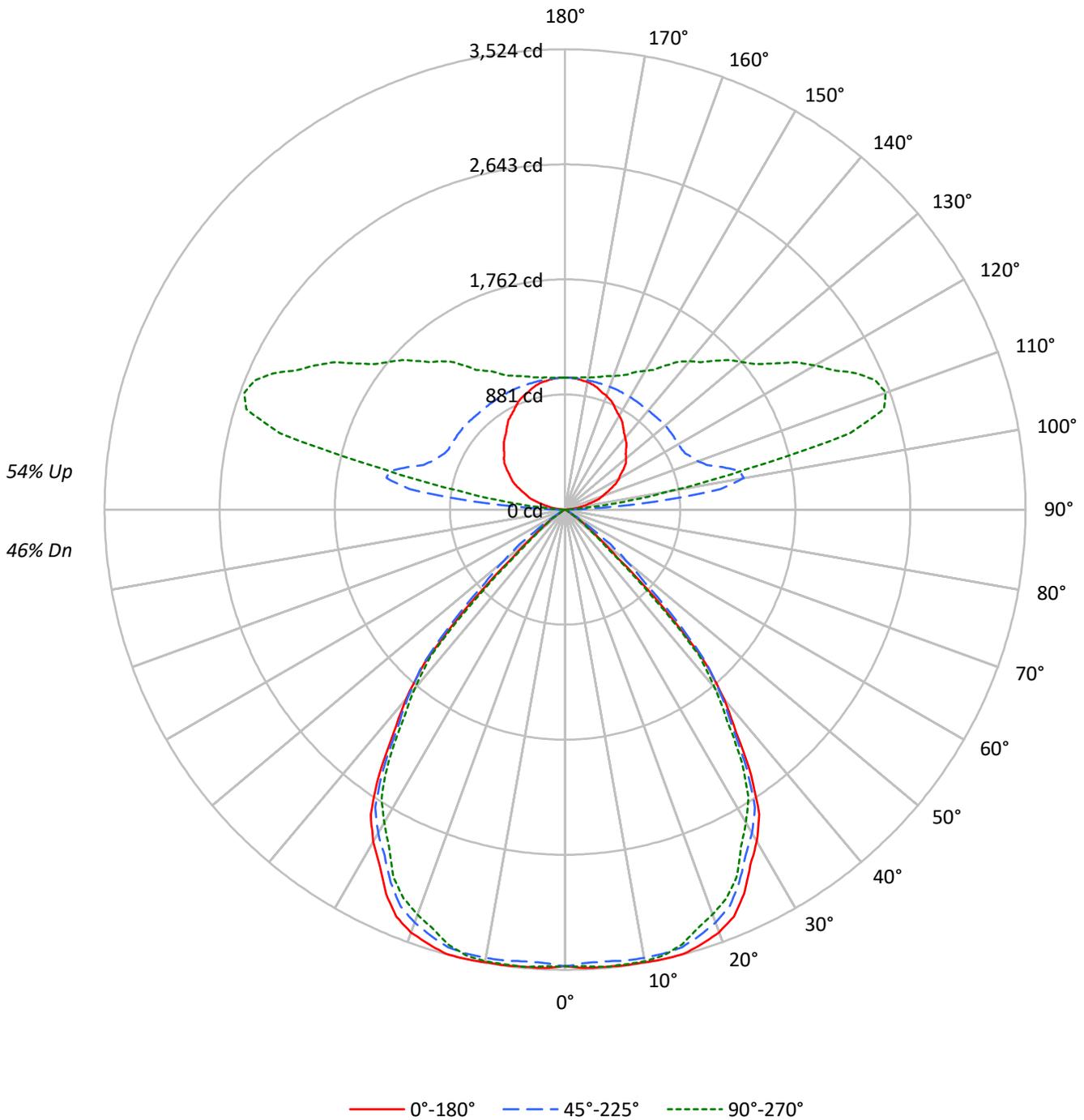
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11515.9 lumens
Efficiency: N/A
Efficacy: 108.7 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°	56465	56465	56465
5°	56973	56269	56973
10°	57700	57146	57579
15°	58863	57962	57645
20°	59199	57819	56713
25°	57767	56167	55319
30°	54702	53323	51589
35°	48917	47772	46440
40°	39840	39260	37656
45°	24318	27551	21907
50°	7935	15420	6980
55°	2705	5441	2795
60°	203	1569	68
65°	42	80	0
70°	0	52	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: 27597 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.7	2.9
10°-20°	982.7	8.5
20°-30°	1452.4	12.6
30°-40°	1492.6	13.0
40°-50°	862.2	7.5
50°-60°	149.4	1.3
60°-70°	5.6	0.0
70°-80°	0.1	0.0
80°-90°	1.4	0.0
90°-100°	384.9	3.3
100°-110°	1260.4	10.9
110°-120°	1246.1	10.8
120°-130°	1018.6	8.8
130°-140°	831.2	7.2
140°-150°	646.9	5.6
150°-160°	465.8	4.0
160°-170°	285.0	2.5
170°-180°	96.3	0.8
0°-30°	2769.8	24.1
0°-40°	4262.4	37.0
0°-60°	5273.9	45.8
0°-90°	5281.0	45.9
90°-120°	2891.4	25.1
90°-150°	5388.2	46.8
90°-180°	6235.0	54.1
0°-180°	11515.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3497	3497	3497	3497	3497	
5°	3515	3505	3472	3522	3515	336
15°	3522	3547	3468	3473	3449	992
25°	3243	3272	3153	3117	3105	1483
35°	2482	2483	2424	2386	2356	1527
45°	1065	1209	1207	1142	959	814
55°	96	112	193	110	99	108
65°	1	1	2	1	0	2
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	54	156	700	249	162	61
105°	219	312	1251	2377	2258	231
115°	394	472	1016	2100	2466	390
125°	549	612	1002	1656	1946	489
135°	661	731	994	1429	1610	512
145°	774	830	992	1229	1347	485
155°	882	911	998	1099	1142	406
165°	962	972	1002	1041	1052	271
175°	1006	1006	1007	1014	1012	95
180°	1010	1010	1010	1010	1010	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3497.2	3497.2	3497.2	3497.2	3497.2
2.5°	3513.3	3503.3	3475.2	3507.2	3499.7
5°	3515.2	3504.8	3471.8	3522.4	3515.2
7.5°	3518.5	3512.1	3483.9	3523.6	3512.0
10°	3519.4	3520.4	3485.6	3520.3	3512.0
12.5°	3524.5	3534.6	3482.2	3510.0	3495.9
15°	3521.5	3547.3	3467.6	3473.4	3448.6
17.5°	3486.0	3523.2	3420.9	3395.9	3364.9
20°	3445.4	3482.6	3365.1	3331.7	3300.7
22.5°	3373.6	3414.1	3288.2	3251.4	3222.9
25°	3242.6	3271.5	3152.8	3116.6	3105.2
27.5°	3070.1	3080.5	2988.6	2940.8	2914.2
30°	2934.1	2932.0	2860.1	2805.3	2767.1
32.5°	2765.9	2776.2	2703.7	2652.3	2613.3
35°	2481.8	2482.9	2423.7	2386.1	2356.1
37.5°	2150.5	2145.3	2104.4	2053.8	2036.8
40°	1890.2	1897.4	1862.7	1805.2	1786.6
42.5°	1588.4	1636.2	1611.7	1544.0	1521.2
45°	1065.0	1208.6	1206.6	1142.2	959.4
47.5°	545.0	724.7	832.8	652.3	437.6
50°	315.9	429.5	613.9	338.8	277.9
52.5°	200.1	254.2	436.4	220.2	184.9
55°	96.1	111.6	193.3	109.6	99.3
57.5°	35.1	52.2	85.8	53.3	37.6
60°	6.3	21.8	48.6	14.5	2.1
62.5°	2.1	6.0	28.3	3.7	1.3
65°	1.1	1.1	2.1	1.0	0.0
67.5°	0.0	1.0	1.1	0.0	0.0
70°	0.0	1.0	1.1	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	1.7	1.5	1.7
90°	1.0	3.1	8.3	7.3	8.3
92.5°	17.7	64.3	197.7	64.3	51.5
95°	54.0	156.5	699.8	249.3	162.0
97.5°	98.0	206.4	1200.6	726.3	450.2
100°	128.7	232.3	1389.2	1240.5	822.3
102.5°	163.6	264.7	1368.4	1827.9	1417.0
105°	219.1	312.5	1251.1	2377.0	2258.2
107.5°	273.7	359.4	1136.7	2428.3	2558.9
110°	309.4	392.6	1081.9	2368.6	2611.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	424.3	1048.6	2264.6	2575.5
115°	394.5	471.7	1016.4	2100.4	2465.8
117.5°	444.2	516.2	1004.2	1939.0	2310.1
120°	476.6	544.6	1000.9	1844.9	2206.3
122.5°	505.6	572.0	1000.9	1763.7	2099.1
125°	549.2	612.2	1001.9	1656.4	1945.7
127.5°	586.2	650.4	1000.7	1577.2	1829.0
130°	609.5	674.4	999.8	1529.3	1756.7
132.5°	630.2	696.8	997.3	1488.1	1694.4
135°	661.4	731.4	993.6	1428.6	1610.3
137.5°	694.2	763.6	991.3	1366.5	1530.8
140°	717.4	784.4	990.5	1327.3	1482.6
142.5°	740.7	803.6	990.5	1285.4	1426.1
145°	773.5	830.3	991.5	1228.9	1346.6
147.5°	808.0	855.3	993.0	1179.6	1268.5
150°	829.6	871.2	994.6	1151.1	1226.2
152.5°	851.2	887.9	995.5	1127.5	1189.6
155°	881.5	910.9	997.8	1099.4	1142.1
157.5°	908.7	930.0	1000.0	1077.4	1108.2
160°	926.1	943.4	1000.9	1064.8	1089.1
162.5°	941.1	955.1	1000.9	1054.6	1072.5
165°	962.5	971.6	1001.9	1040.6	1051.7
167.5°	980.5	985.0	1003.2	1029.7	1035.8
170°	990.5	992.5	1004.0	1023.8	1025.8
172.5°	998.0	999.2	1006.5	1019.6	1020.0
175°	1006.1	1006.1	1007.1	1014.3	1012.3
177.5°	1010.2	1009.4	1008.6	1013.5	1010.2
180°	1010.2	1010.2	1010.2	1010.2	1010.2



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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	1.32	2.00	2.34	3.01	4.36	0.93	1.62	1.96	2.63	3.97
	3H	1.12	1.73	2.16	2.75	4.11	0.73	1.34	1.77	2.36	3.73
	4H	1.02	1.59	2.06	2.61	3.98	0.63	1.20	1.68	2.22	3.59
	6H	0.91	1.43	1.96	2.46	3.84	0.52	1.04	1.57	2.07	3.45
	8H	0.84	1.34	1.90	2.38	3.76	0.46	0.95	1.52	1.99	3.37
	12H	0.78	1.26	1.85	2.29	3.69	0.39	0.87	1.46	1.90	3.30
4H	2H	1.02	1.60	2.08	2.62	3.99	0.64	1.21	1.69	2.23	3.60
	3H	0.82	1.29	1.88	2.34	3.73	0.43	0.91	1.49	1.96	3.34
	4H	0.71	1.14	1.77	2.18	3.59	0.32	0.75	1.38	1.79	3.20
	6H	0.60	0.96	1.67	2.03	3.43	0.21	0.58	1.28	1.64	3.04
	8H	0.53	0.88	1.60	1.93	3.35	0.14	0.49	1.22	1.54	2.96
	12H	0.46	0.77	1.55	1.84	3.26	0.07	0.38	1.16	1.45	2.87
8H	4H	0.53	0.88	1.60	1.93	3.35	0.15	0.49	1.22	1.54	2.96
	6H	0.41	0.69	1.51	1.79	3.21	0.03	0.31	1.12	1.41	2.82
	8H	0.36	0.60	1.46	1.68	3.12	0.00	0.21	1.07	1.30	2.73
	12H	0.29	0.50	1.39	1.58	3.05	0.00	0.11	1.00	1.19	2.66
12H	4H	0.46	0.77	1.55	1.84	3.26	0.07	0.38	1.16	1.45	2.87
	6H	0.36	0.60	1.46	1.68	3.12	0.00	0.21	1.07	1.30	2.73
	8H	0.29	0.50	1.39	1.58	3.05	0.00	0.11	1.00	1.19	2.66