

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: P853559

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853559
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-125U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

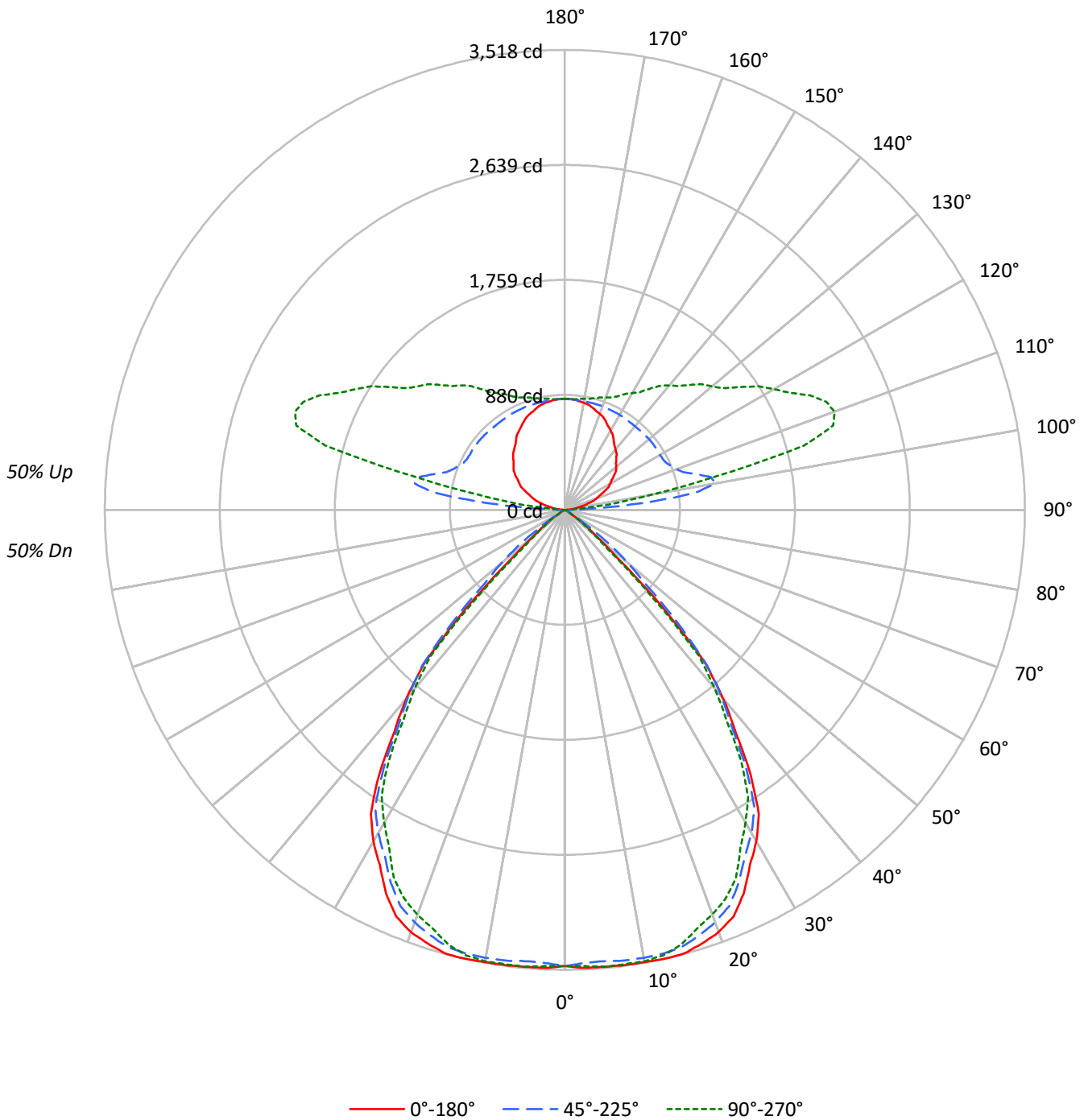
Lumens per Lamp: N/A
Luminaire Lumens: 10509.7 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 93.7
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	83	83	83	69	69	69	56	56	56	50
1	100	96	93	90	92	89	87	84	76	74	72	64	63	62	53	52	51	46
2	93	86	81	77	86	80	76	72	69	66	63	59	57	55	49	48	47	42
3	86	78	72	67	79	73	67	63	63	59	56	54	51	49	45	44	42	38
4	80	71	64	59	74	66	60	56	57	53	50	49	46	44	42	40	38	35
5	74	64	57	52	69	60	54	49	53	48	44	46	42	39	39	37	35	32
6	69	58	51	46	64	55	49	44	48	43	40	42	38	36	36	34	32	29
7	64	53	46	41	60	50	44	39	44	39	36	39	35	32	34	31	29	27
8	60	49	42	37	56	46	40	36	41	36	33	36	32	30	31	29	27	24
9	56	45	38	34	52	43	37	32	38	33	30	33	30	27	29	26	24	22
10	53	42	35	31	49	39	34	30	35	30	27	31	27	25	27	25	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	56359	56359	56359
5°	56866	56164	56866
10°	57592	57038	57471
15°	58753	57854	57536
20°	59089	57711	56606
25°	57658	56060	55216
30°	54598	53222	51492
35°	48827	47683	46353
40°	39764	39186	37586
45°	24272	27499	21866
50°	7920	15390	6968
55°	2702	5433	2790
60°	203	1566	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: 27544 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.0	3.2
10°-20°	980.9	9.3
20°-30°	1449.6	13.8
30°-40°	1489.8	14.2
40°-50°	860.5	8.2
50°-60°	149.1	1.4
60°-70°	5.6	0.1
70°-80°	0.1	0.0
80°-90°	1.2	0.0
90°-100°	324.8	3.1
100°-110°	1057.5	10.1
110°-120°	1046.1	10.0
120°-130°	854.9	8.1
130°-140°	698.7	6.6
140°-150°	544.2	5.2
150°-160°	392.3	3.7
160°-170°	239.8	2.3
170°-180°	80.9	0.8
0°-30°	2764.6	26.3
0°-40°	4254.4	40.5
0°-60°	5264.0	50.1
0°-90°	5270.9	50.2
90°-120°	2428.4	23.1
90°-150°	4526.1	43.1
90°-180°	5239.0	49.8
0°-180°	10509.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3491	3491	3491	3491	3491	
5°	3509	3498	3465	3516	3509	335
15°	3515	3541	3461	3467	3442	990
25°	3236	3265	3147	3111	3099	1480
35°	2477	2478	2419	2382	2352	1524
45°	1063	1206	1204	1140	958	812
55°	96	111	193	109	99	108
65°	1	1	2	1	0	2
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	3	7	6	6	2
95°	44	134	595	212	131	51
105°	180	259	1048	2001	1895	192
115°	332	396	853	1759	2069	329
125°	462	515	842	1388	1637	411
135°	558	616	838	1198	1352	431
145°	652	700	836	1032	1130	408
155°	744	768	841	924	959	343
165°	812	819	843	874	885	229
175°	846	846	846	852	850	80
180°	849	849	849	849	849	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3490.6	3490.6	3490.6	3490.6	3490.6
2.5°	3506.7	3496.8	3468.7	3500.6	3493.2
5°	3508.6	3498.3	3465.3	3515.8	3508.6
7.5°	3511.9	3505.5	3477.3	3516.9	3505.4
10°	3512.8	3513.8	3479.0	3513.6	3505.4
12.5°	3517.8	3527.9	3475.7	3503.4	3489.4
15°	3514.9	3540.7	3461.1	3466.9	3442.1
17.5°	3479.5	3516.6	3414.5	3389.5	3358.6
20°	3439.0	3476.1	3358.8	3325.4	3294.5
22.5°	3367.2	3407.7	3282.0	3245.3	3216.9
25°	3236.5	3265.4	3146.8	3110.7	3099.4
27.5°	3064.4	3074.7	2983.0	2935.3	2908.7
30°	2928.5	2926.5	2854.7	2800.1	2761.9
32.5°	2760.7	2771.0	2698.7	2647.4	2608.4
35°	2477.2	2478.2	2419.2	2381.6	2351.7
37.5°	2146.5	2141.3	2100.5	2049.9	2033.0
40°	1886.6	1893.8	1859.2	1801.8	1783.3
42.5°	1585.4	1633.1	1608.6	1541.1	1518.4
45°	1063.0	1206.3	1204.3	1140.1	957.6
47.5°	543.9	723.4	831.2	651.1	436.8
50°	315.3	428.7	612.7	338.2	277.4
52.5°	199.7	253.8	435.5	219.8	184.6
55°	96.0	111.4	193.0	109.4	99.1
57.5°	35.0	52.1	85.6	53.2	37.5
60°	6.3	21.8	48.5	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°	0.0	0.6	1.5	1.3	1.3
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.0	54.1	172.8	56.9	43.9
95°	43.9	133.7	595.3	212.3	130.6
97.5°	82.5	174.0	1010.4	615.4	375.6
100°	107.6	197.4	1166.7	1040.3	674.7
102.5°	136.0	222.6	1147.4	1539.1	1170.2
105°	179.6	259.3	1047.6	2000.8	1894.6
107.5°	226.9	301.8	952.7	2040.9	2153.4
110°	261.1	329.5	907.6	1991.2	2194.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	289.5	357.1	879.2	1901.4	2163.5
115°	332.1	396.5	853.3	1758.6	2069.1
117.5°	376.0	434.0	843.3	1627.8	1936.8
120°	401.1	458.3	840.8	1547.4	1846.6
122.5°	425.3	481.7	841.6	1477.5	1756.3
125°	461.6	514.8	841.8	1388.5	1636.7
127.5°	492.8	547.1	841.6	1321.8	1528.7
130°	512.8	568.0	840.8	1283.7	1468.5
132.5°	530.4	588.0	839.9	1248.3	1421.7
135°	557.7	615.9	837.6	1198.3	1351.5
137.5°	584.5	643.1	835.4	1147.6	1283.6
140°	603.7	659.9	834.5	1113.2	1241.9
142.5°	622.1	675.8	834.5	1080.3	1195.1
145°	651.7	699.7	835.6	1032.1	1130.1
147.5°	680.6	722.2	837.0	991.0	1066.8
150°	699.8	736.5	838.7	966.5	1030.9
152.5°	719.0	749.2	839.5	947.9	999.1
155°	743.6	768.2	840.8	924.1	958.8
157.5°	767.0	784.6	842.0	906.5	930.8
160°	781.2	795.5	842.9	895.5	914.9
162.5°	793.8	804.8	842.9	886.2	900.7
165°	811.5	818.7	842.9	874.4	884.6
167.5°	824.1	828.6	843.1	865.6	870.9
170°	832.4	834.5	843.9	859.6	861.7
172.5°	838.3	839.5	845.6	856.2	855.8
175°	846.0	846.0	846.0	852.2	850.2
177.5°	849.1	848.3	847.5	851.6	848.3
180°	849.1	849.1	849.1	849.1	849.1

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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	1.75	2.45	2.74	3.43	4.71	1.36	2.06	2.35	3.04	4.32
	3H	1.55	2.18	2.56	3.17	4.47	1.16	1.79	2.16	2.77	4.08
	4H	1.45	2.03	2.46	3.03	4.34	1.06	1.64	2.07	2.64	3.95
	6H	1.34	1.88	2.36	2.87	4.20	0.95	1.48	1.97	2.48	3.80
	8H	1.28	1.79	2.30	2.80	4.12	0.89	1.40	1.91	2.41	3.73
	12H	1.22	1.70	2.25	2.70	4.05	0.82	1.31	1.86	2.31	3.65
4H	2H	1.45	2.04	2.47	3.03	4.35	1.06	1.65	2.09	2.64	3.96
	3H	1.25	1.74	2.28	2.76	4.08	0.86	1.35	1.89	2.37	3.69
	4H	1.14	1.58	2.17	2.59	3.94	0.75	1.19	1.78	2.20	3.55
	6H	1.03	1.41	2.07	2.44	3.79	0.64	1.02	1.68	2.05	3.40
	8H	0.97	1.32	2.01	2.34	3.70	0.58	0.93	1.62	1.95	3.31
	12H	0.89	1.21	1.95	2.25	3.61	0.50	0.82	1.56	1.86	3.22
8H	4H	0.97	1.32	2.01	2.34	3.70	0.58	0.93	1.62	1.95	3.31
	6H	0.85	1.13	1.91	2.20	3.56	0.46	0.74	1.52	1.81	3.17
	8H	0.79	1.04	1.86	2.10	3.47	0.40	0.65	1.47	1.71	3.08
	12H	0.72	0.94	1.79	1.99	3.41	0.33	0.55	1.40	1.60	3.02
12H	4H	0.89	1.21	1.95	2.25	3.61	0.50	0.82	1.56	1.86	3.22
	6H	0.79	1.04	1.86	2.10	3.47	0.40	0.65	1.47	1.71	3.08
	8H	0.72	0.94	1.79	1.99	3.41	0.33	0.55	1.40	1.60	3.02