

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: P853498

Luminaire Tested: SQ2-BBM-025U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853498
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-025U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

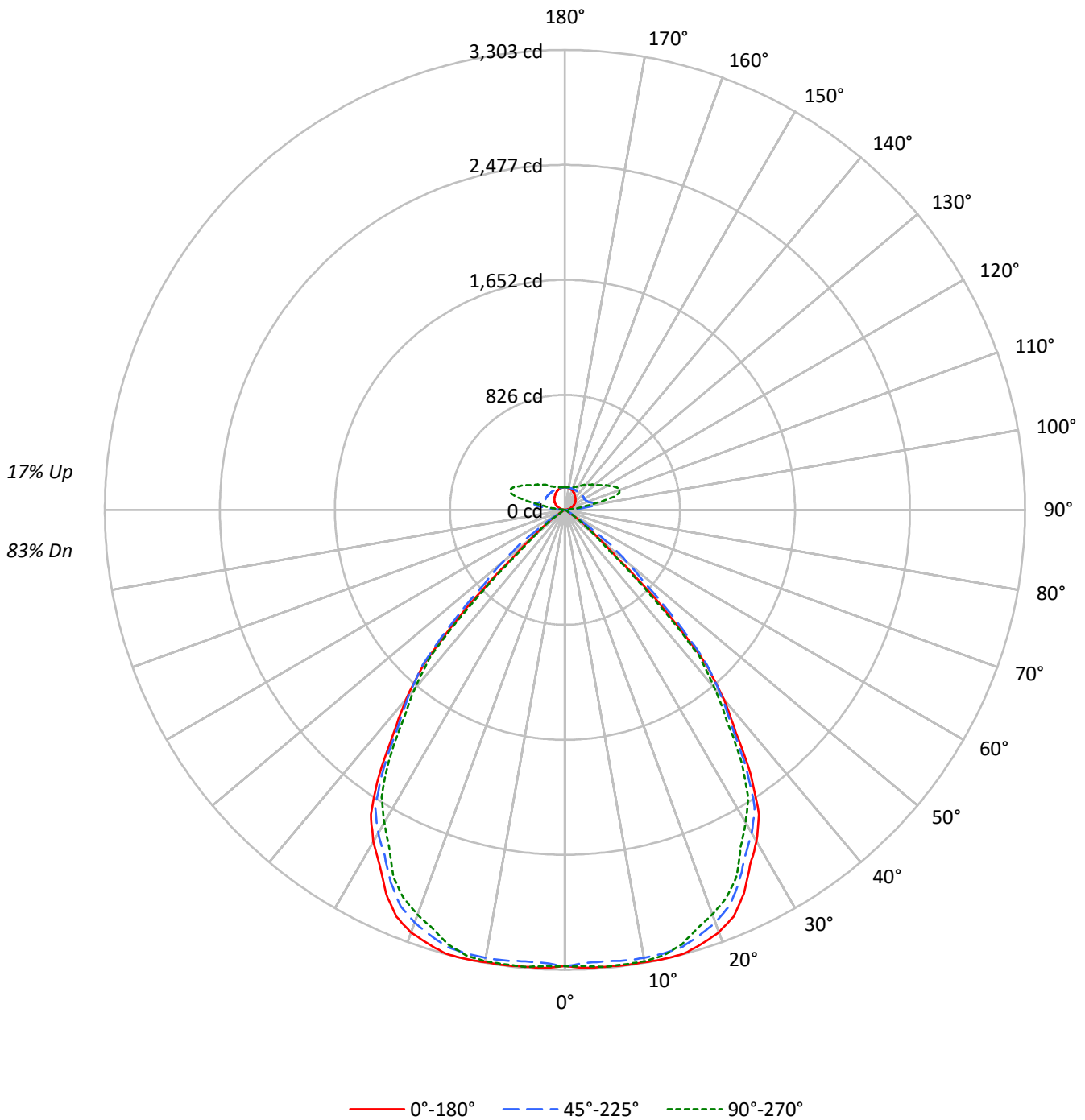
Lumens per Lamp: N/A
Luminaire Lumens: 5953.5 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 57.2
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	50	30	10
RCR																				
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83		
1	108	105	102	100	104	101	99	97	94	92	91	88	86	85	82	81	80	77		
2	102	96	91	87	98	93	89	85	87	83	81	81	79	76	76	74	72	70		
3	95	88	82	77	92	85	80	76	80	76	72	75	72	69	71	68	66	63		
4	89	80	74	69	86	78	72	68	74	69	65	70	66	62	66	63	60	58		
5	83	74	67	62	80	72	65	61	68	63	59	64	60	57	61	58	55	53		
6	78	68	61	56	75	66	60	55	63	57	53	60	55	52	57	53	50	48		
7	73	63	56	51	71	61	55	50	58	53	49	55	51	47	53	49	46	44		
8	69	58	51	46	66	57	50	46	54	48	45	52	47	43	49	45	42	40		
9	65	54	47	42	63	53	46	42	50	45	41	48	43	40	46	42	39	37		
10	61	50	43	39	59	49	43	39	47	41	38	45	40	37	43	39	36	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	52923	52923	52923
5°	53397	52739	53397
10°	54080	53561	53967
15°	55171	54327	54028
20°	55486	54192	53154
25°	54141	52643	51849
30°	51270	49978	48352
35°	45848	44776	43527
40°	37340	36796	35293
45°	22793	25823	20532
50°	7438	14451	6541
55°	2536	5101	2621
60°	191	1473	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: 25866 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.7	5.3
10°-20°	921.1	15.5
20°-30°	1361.2	22.9
30°-40°	1399.0	23.5
40°-50°	808.1	13.6
50°-60°	140.0	2.4
60°-70°	5.2	0.1
70°-80°	0.1	0.0
80°-90°	0.5	0.0
90°-100°	65.5	1.1
100°-110°	203.8	3.4
110°-120°	199.3	3.3
120°-130°	162.7	2.7
130°-140°	133.1	2.2
140°-150°	103.9	1.7
150°-160°	75.0	1.3
160°-170°	45.9	0.8
170°-180°	15.5	0.3
0°-30°	2596.0	43.6
0°-40°	3995.0	67.1
0°-60°	4943.1	83.0
0°-90°	4948.9	83.1
90°-120°	468.6	7.9
90°-150°	868.4	14.6
90°-180°	1005.0	16.9
0°-180°	5953.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3278	3278	3278	3278	3278	
5°	3295	3285	3254	3301	3295	315
15°	3301	3325	3250	3256	3232	930
25°	3039	3066	2955	2921	2910	1390
35°	2326	2327	2272	2236	2208	1431
45°	998	1133	1131	1070	899	763
55°	90	105	181	103	93	101
65°	1	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	0
95°	9	26	120	44	29	10
105°	36	50	201	383	366	38
115°	64	75	163	336	393	63
125°	88	98	161	264	310	78
135°	106	118	160	228	256	82
145°	124	134	160	197	214	78
155°	142	147	161	177	183	65
165°	156	157	162	167	169	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3277.8	3277.8	3277.8	3277.8	3277.8
2.5°	3292.8	3283.6	3257.2	3287.1	3280.2
5°	3294.6	3284.9	3254.0	3301.4	3294.6
7.5°	3297.8	3291.8	3265.3	3302.5	3291.7
10°	3298.6	3299.6	3266.9	3299.4	3291.7
12.5°	3303.3	3312.8	3263.7	3289.8	3276.6
15°	3300.6	3324.8	3250.1	3255.5	3232.2
17.5°	3267.3	3302.2	3206.3	3182.9	3153.8
20°	3229.3	3264.1	3154.0	3122.7	3093.6
22.5°	3161.9	3199.9	3081.9	3047.4	3020.7
25°	3039.1	3066.3	2955.0	2921.1	2910.4
27.5°	2877.5	2887.2	2801.1	2756.3	2731.4
30°	2750.0	2748.0	2680.7	2629.3	2593.5
32.5°	2592.3	2602.0	2534.1	2485.9	2449.3
35°	2326.1	2327.1	2271.7	2236.4	2208.3
37.5°	2015.6	2010.8	1972.4	1924.9	1909.0
40°	1771.6	1778.4	1745.8	1692.0	1674.5
42.5°	1488.8	1533.5	1510.6	1447.1	1425.8
45°	998.2	1132.8	1130.9	1070.5	899.2
47.5°	510.8	679.3	780.5	611.4	410.2
50°	296.1	402.6	575.3	317.6	260.4
52.5°	187.6	238.3	409.0	206.4	173.3
55°	90.1	104.6	181.2	102.8	93.1
57.5°	32.9	49.0	80.4	50.0	35.3
60°	5.9	20.5	45.6	13.6	2.0
62.5°	2.0	5.7	26.5	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°	0.0	0.2	0.6	0.6	0.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	37.9	12.5	10.1
95°	8.9	26.4	120.2	44.3	28.8
97.5°	16.3	34.3	199.0	123.9	78.1
100°	21.8	38.4	224.4	209.9	140.0
102.5°	27.4	43.1	219.7	299.8	235.4
105°	35.8	50.3	200.6	382.9	365.5
107.5°	44.1	57.7	182.3	389.3	408.6
110°	49.7	63.2	172.8	380.2	418.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	55.2	68.0	168.0	363.8	411.7
115°	63.6	75.2	162.9	336.0	393.3
117.5°	71.7	82.4	160.7	309.4	368.0
120°	76.5	87.2	159.9	294.2	350.6
122.5°	81.2	91.9	160.7	281.4	333.1
125°	88.4	98.1	160.9	264.2	309.8
127.5°	94.1	104.1	160.9	251.3	290.2
130°	97.3	108.0	160.9	244.1	279.1
132.5°	101.3	112.0	160.1	237.7	270.3
135°	106.3	117.9	159.9	228.1	256.2
137.5°	112.0	122.7	159.9	218.5	244.1
140°	115.2	125.9	159.9	212.1	235.4
142.5°	119.2	129.1	159.9	205.7	226.6
145°	124.1	133.8	159.9	197.0	214.5
147.5°	130.1	138.4	160.9	189.0	202.8
150°	134.1	140.9	160.9	185.0	195.6
152.5°	137.2	143.3	160.9	181.0	190.1
155°	142.0	146.9	160.9	176.9	182.7
157.5°	146.8	150.5	160.9	173.3	177.0
160°	150.0	152.9	160.9	170.9	173.8
162.5°	152.3	154.5	160.9	169.3	171.4
165°	155.9	156.9	161.9	166.9	168.8
167.5°	158.1	158.3	160.9	165.5	166.4
170°	158.9	159.9	160.9	163.9	164.9
172.5°	160.5	160.7	161.7	163.1	163.3
175°	161.9	161.9	161.9	162.8	161.9
177.5°	161.9	161.9	161.9	161.9	161.9
180°	161.9	161.9	161.9	161.9	161.9



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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	4.38	5.31	5.02	5.93	6.65	3.99	4.92	4.63	5.55	6.26
	3H	4.20	5.02	4.86	5.66	6.41	3.81	4.63	4.47	5.27	6.02
	4H	4.10	4.86	4.78	5.51	6.28	3.72	4.47	4.39	5.13	5.90
	6H	4.00	4.69	4.69	5.36	6.14	3.61	4.31	4.30	4.97	5.75
	8H	3.94	4.60	4.64	5.28	6.06	3.56	4.21	4.26	4.89	5.68
	12H	3.89	4.51	4.59	5.18	5.99	3.50	4.12	4.20	4.80	5.60
4H	2H	4.11	4.87	4.79	5.52	6.29	3.72	4.48	4.40	5.13	5.90
	3H	3.92	4.54	4.61	5.23	6.02	3.54	4.15	4.23	4.85	5.63
	4H	3.81	4.37	4.52	5.06	5.88	3.43	3.98	4.13	4.67	5.49
	6H	3.71	4.18	4.43	4.90	5.73	3.32	3.79	4.05	4.51	5.34
	8H	3.64	4.08	4.37	4.80	5.64	3.25	3.69	3.98	4.41	5.25
	12H	3.58	3.96	4.32	4.71	5.55	3.19	3.58	3.93	4.32	5.16
8H	4H	3.64	4.08	4.37	4.80	5.64	3.25	3.70	3.98	4.41	5.25
	6H	3.52	3.88	4.28	4.64	5.48	3.13	3.49	3.89	4.26	5.10
	8H	3.45	3.77	4.23	4.54	5.39	3.07	3.39	3.84	4.15	5.01
	12H	3.39	3.67	4.16	4.42	5.35	3.01	3.29	3.77	4.04	4.96
12H	4H	3.58	3.96	4.32	4.71	5.55	3.19	3.58	3.93	4.32	5.16
	6H	3.45	3.77	4.23	4.54	5.40	3.07	3.39	3.84	4.15	5.01
	8H	3.39	3.67	4.16	4.42	5.35	3.01	3.29	3.77	4.04	4.96