

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: P853523

Luminaire Tested: SQ2-BBM-075U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853523
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-075U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

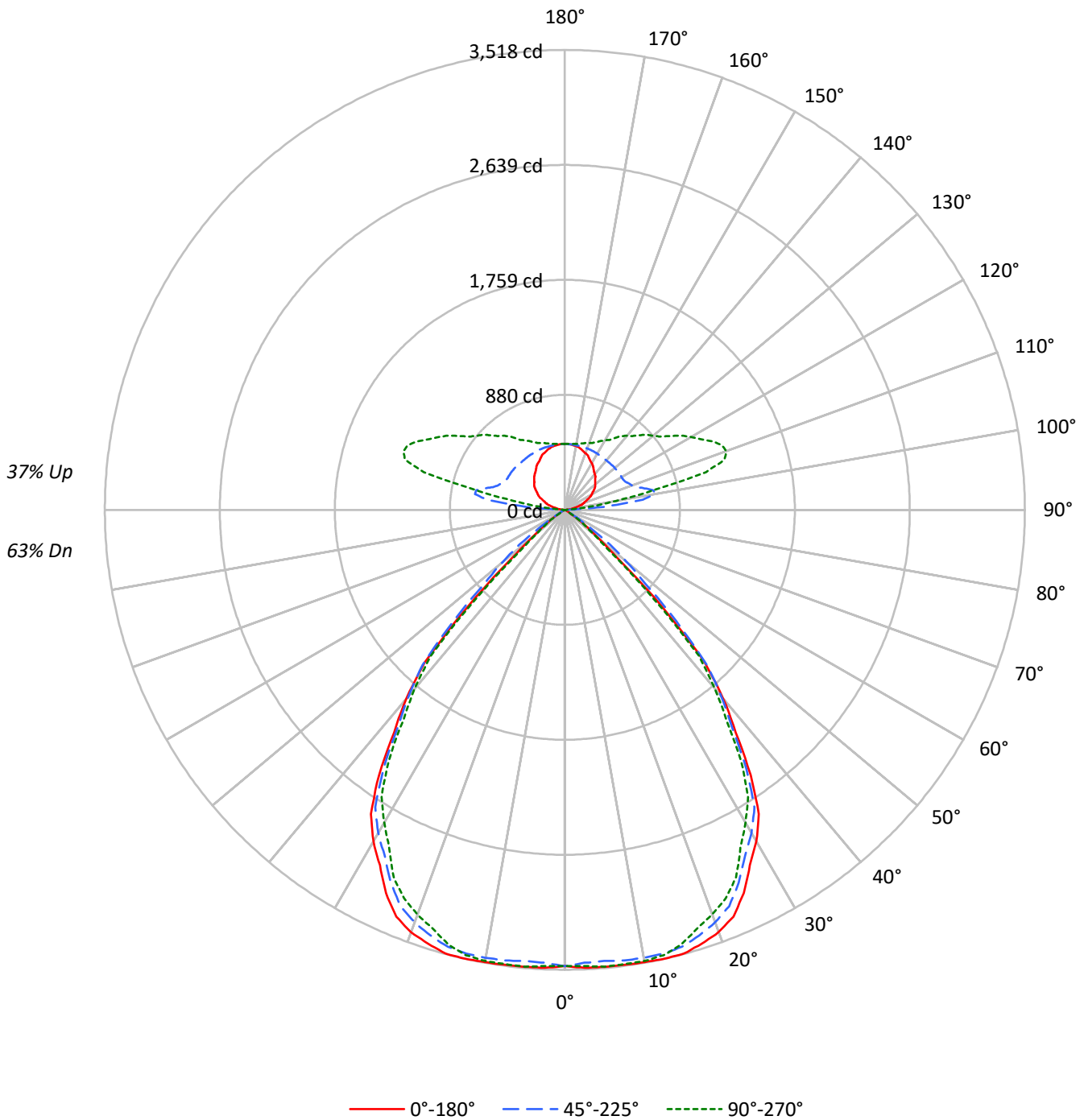
Lumens per Lamp: N/A
Luminaire Lumens: 8393.1 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 73.1
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	50	30	10	50	30	10	50	30	10	0				
RCR																																		
0	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63																
1	103	100	97	94	97	94	91	89	83	81	79	73	72	70	64	63	62	58																
2	96	90	85	81	90	85	81	77	76	73	70	67	65	63	59	58	56	53																
3	89	82	76	71	84	77	72	68	69	65	62	62	59	57	55	53	51	48																
4	83	74	68	63	78	71	65	60	64	59	56	57	54	51	51	49	47	44																
5	78	68	61	56	73	64	58	54	58	54	50	53	49	46	47	45	42	40																
6	72	62	55	50	68	59	53	48	54	49	45	49	45	42	44	41	39	36																
7	68	57	50	45	64	54	48	44	50	45	41	45	41	38	41	38	35	33																
8	63	52	45	41	60	50	44	40	46	41	37	42	38	35	38	35	33	31																
9	59	48	42	37	56	46	40	36	43	38	34	39	35	32	36	32	30	28																
10	56	45	38	34	53	43	37	33	40	35	31	36	32	29	33	30	28	26																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	56354	56354	56354
5°	56859	56159	56859
10°	57586	57033	57464
15°	58746	57849	57531
20°	59082	57706	56599
25°	57653	56055	55210
30°	54592	53216	51486
35°	48821	47678	46349
40°	39759	39182	37582
45°	24270	27496	21863
50°	7920	15388	6965
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: 27542 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.0	4.0
10°-20°	980.8	11.7
20°-30°	1449.5	17.3
30°-40°	1489.7	17.7
40°-50°	860.5	10.3
50°-60°	149.1	1.8
60°-70°	5.6	0.1
70°-80°	0.1	0.0
80°-90°	0.6	0.0
90°-100°	190.8	2.3
100°-110°	632.4	7.5
110°-120°	627.7	7.5
120°-130°	511.3	6.1
130°-140°	415.5	5.0
140°-150°	322.7	3.8
150°-160°	232.5	2.8
160°-170°	142.4	1.7
170°-180°	48.1	0.6
0°-30°	2764.3	32.9
0°-40°	4254.0	50.7
0°-60°	5263.5	62.7
0°-90°	5269.8	62.8
90°-120°	1450.9	17.3
90°-150°	2700.4	32.2
90°-180°	3123.0	37.2
0°-180°	8393.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3490	3490	3490	3490	3490	
5°	3508	3498	3465	3515	3508	335
15°	3514	3540	3461	3466	3442	990
25°	3236	3265	3146	3110	3099	1480
35°	2477	2478	2419	2381	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	1	3	4	4	1
95°	27	80	346	123	82	31
105°	111	158	633	1194	1116	117
115°	197	236	510	1061	1241	195
125°	276	306	500	834	983	245
135°	330	364	496	715	807	255
145°	383	412	495	616	674	240
155°	438	453	498	550	570	202
165°	480	486	500	520	525	135
175°	502	502	503	506	506	48
180°	504	504	504	504	504	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3490.3	3490.3	3490.3	3490.3	3490.3
2.5°	3506.3	3496.4	3468.3	3500.2	3492.8
5°	3508.2	3497.9	3465.0	3515.4	3508.2
7.5°	3511.6	3505.2	3477.0	3516.6	3505.0
10°	3512.4	3513.5	3478.7	3513.3	3505.0
12.5°	3517.5	3527.6	3475.3	3503.0	3489.0
15°	3514.5	3540.3	3460.8	3466.5	3441.8
17.5°	3479.1	3516.2	3414.1	3389.2	3358.3
20°	3438.6	3475.7	3358.5	3325.1	3294.1
22.5°	3366.9	3407.3	3281.7	3245.0	3216.5
25°	3236.2	3265.0	3146.5	3110.4	3099.1
27.5°	3064.1	3074.4	2982.7	2935.0	2908.4
30°	2928.2	2926.2	2854.4	2799.8	2761.6
32.5°	2760.4	2770.7	2698.4	2647.1	2608.1
35°	2476.9	2478.0	2418.9	2381.4	2351.5
37.5°	2146.3	2141.1	2100.3	2049.7	2032.8
40°	1886.4	1893.7	1859.0	1801.7	1783.1
42.5°	1585.3	1632.9	1608.5	1540.9	1518.2
45°	1062.9	1206.2	1204.2	1139.9	957.5
47.5°	543.9	723.3	831.1	651.0	436.8
50°	315.3	428.7	612.6	338.2	277.3
52.5°	199.7	253.7	435.5	219.8	184.5
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	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.3	95.0	30.8	25.9
95°	27.2	80.3	345.7	123.4	82.5
97.5°	49.9	105.5	603.5	352.0	222.5
100°	65.8	118.9	698.7	600.1	397.9
102.5°	83.3	134.8	692.9	917.1	692.9
105°	110.7	157.7	632.9	1194.1	1116.5
107.5°	138.7	180.6	575.5	1222.3	1281.3
110°	154.6	196.4	546.2	1194.4	1313.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.3	212.3	528.7	1145.0	1297.2
115°	197.4	236.2	509.7	1061.1	1240.8
117.5°	223.3	257.8	502.8	980.8	1169.4
120°	239.2	272.9	500.3	930.6	1113.4
122.5°	253.4	286.3	500.3	889.3	1058.2
125°	275.7	306.4	500.3	833.7	982.8
127.5°	294.1	324.1	499.0	791.7	919.1
130°	305.0	336.6	498.2	767.1	881.5
132.5°	315.0	347.5	497.4	746.8	849.8
135°	330.0	363.7	496.1	715.4	807.4
137.5°	346.3	378.8	494.9	685.1	766.2
140°	357.2	388.9	494.0	664.9	739.5
142.5°	367.2	398.1	494.9	644.7	711.1
145°	383.3	411.9	495.1	615.5	673.7
147.5°	400.6	424.5	495.3	590.7	634.0
150°	411.5	433.0	496.1	576.3	613.1
152.5°	421.5	442.2	496.9	564.5	593.9
155°	437.6	452.9	498.2	549.8	570.3
157.5°	453.3	465.1	499.5	539.5	554.0
160°	461.6	471.9	500.3	531.9	543.1
162.5°	470.0	477.8	500.3	526.8	535.6
165°	480.4	485.5	500.3	520.2	525.4
167.5°	490.1	492.7	501.3	514.3	517.0
170°	495.1	496.1	501.3	511.8	512.8
172.5°	498.4	499.4	502.2	509.3	509.5
175°	502.4	502.4	503.4	506.5	505.5
177.5°	504.5	504.5	503.6	505.3	503.6
180°	504.5	504.5	504.5	504.5	504.5



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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	2.91	3.68	3.79	4.55	5.64	2.52	3.29	3.40	4.16	5.25
	3H	2.72	3.40	3.61	4.28	5.40	2.33	3.01	3.22	3.89	5.01
	4H	2.62	3.26	3.52	4.14	5.27	2.22	2.87	3.13	3.75	4.88
	6H	2.51	3.09	3.42	3.99	5.13	2.12	2.70	3.03	3.60	4.74
	8H	2.45	3.00	3.37	3.91	5.05	2.06	2.61	2.98	3.52	4.66
	12H	2.39	2.92	3.31	3.82	4.98	2.00	2.53	2.92	3.43	4.59
4H	2H	2.62	3.26	3.53	4.15	5.28	2.23	2.87	3.14	3.76	4.89
	3H	2.43	2.95	3.34	3.87	5.01	2.04	2.56	2.95	3.48	4.62
	4H	2.31	2.79	3.24	3.70	4.87	1.92	2.40	2.85	3.31	4.48
	6H	2.21	2.61	3.15	3.55	4.72	1.82	2.22	2.76	3.16	4.33
	8H	2.14	2.52	3.08	3.45	4.63	1.75	2.13	2.69	3.06	4.24
	12H	2.07	2.41	3.03	3.36	4.54	1.68	2.02	2.64	2.97	4.15
8H	4H	2.14	2.52	3.08	3.45	4.63	1.75	2.13	2.69	3.06	4.24
	6H	2.02	2.33	2.99	3.30	4.48	1.63	1.94	2.60	2.91	4.09
	8H	1.96	2.23	2.94	3.20	4.40	1.57	1.84	2.55	2.81	4.01
	12H	1.89	2.13	2.87	3.09	4.34	1.50	1.74	2.48	2.70	3.95
12H	4H	2.07	2.41	3.03	3.36	4.54	1.68	2.02	2.64	2.97	4.15
	6H	1.96	2.23	2.94	3.20	4.40	1.57	1.84	2.55	2.81	4.01
	8H	1.89	2.13	2.87	3.09	4.34	1.50	1.74	2.48	2.70	3.95