

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: P853541

Luminaire Tested: SQ2-BBM-100U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853541
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-100U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

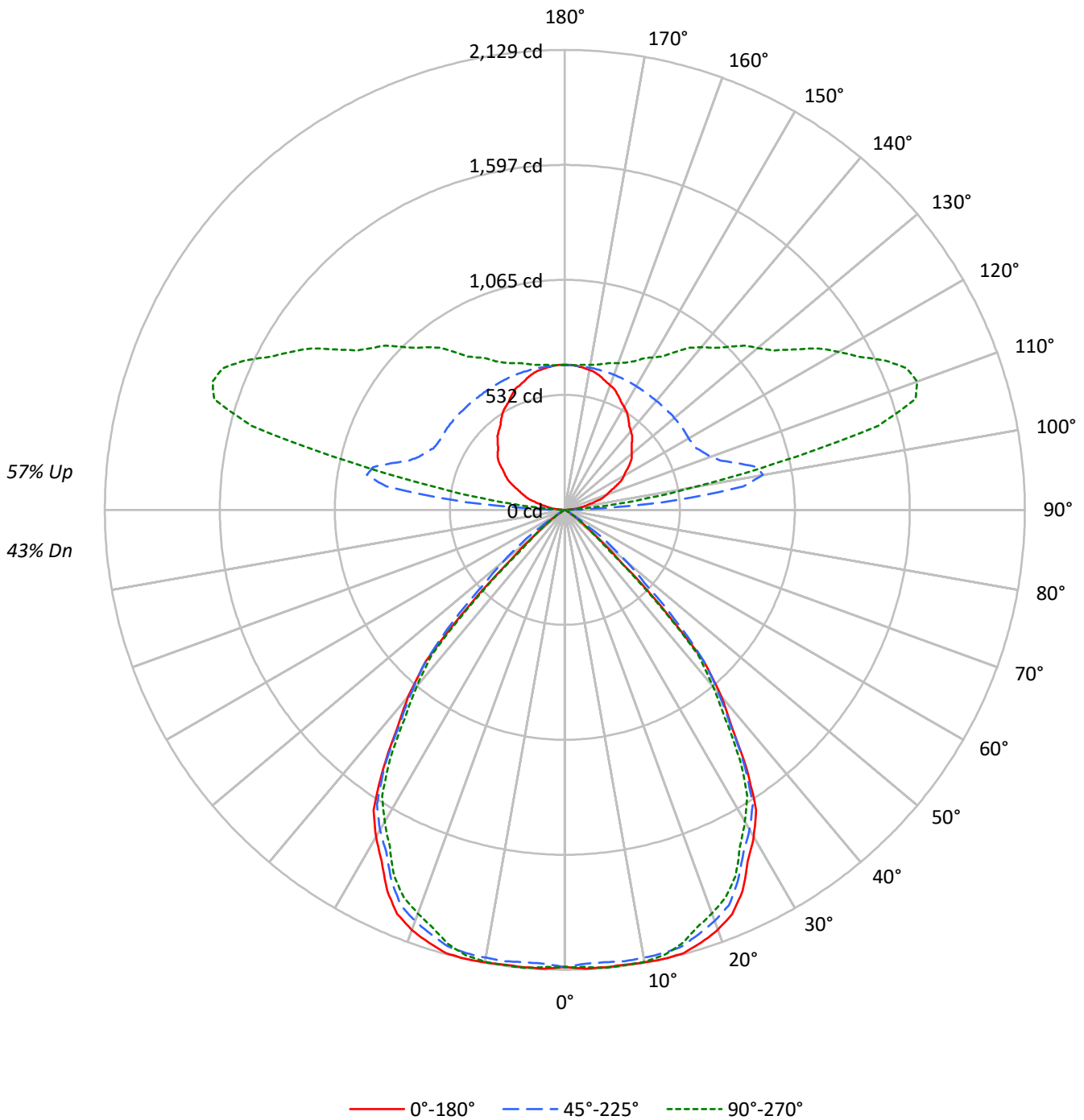
Lumens per Lamp: N/A
Luminaire Lumens: 7338.4 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 60.2
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	0
RCR																		
0	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	98	94	91	88	90	87	84	81	72	70	69	59	58	57	47	46	45	40
2	91	84	79	75	83	78	73	70	65	62	60	54	52	50	43	42	41	36
3	84	76	70	65	77	70	65	61	59	56	52	49	47	45	40	38	37	33
4	78	68	62	56	71	63	58	53	54	50	46	45	42	40	37	35	34	30
5	72	62	55	50	66	58	51	47	49	45	41	42	38	36	34	32	31	27
6	67	56	49	44	62	52	46	42	45	40	37	38	35	32	32	30	28	25
7	62	51	44	39	57	48	42	37	41	37	33	35	32	29	30	27	25	23
8	58	47	40	35	54	44	38	34	38	33	30	33	29	27	28	25	23	21
9	54	43	36	32	50	41	35	30	35	31	27	30	27	24	26	23	21	19
10	51	40	33	29	47	37	32	28	33	28	25	28	25	22	24	22	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34176	34176	34176
5°	34443	34065	34494
10°	34877	34511	34824
15°	35505	34974	34796
20°	35550	34804	34166
25°	34671	33784	33314
30°	32593	31882	31073
35°	28927	28696	27841
40°	23724	23322	22451
45°	14143	16634	13273
50°	4416	9229	4175
55°	1669	3279	1669
60°	103	924	36
65°	0	42	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16634 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.4	2.8
10°-20°	592.8	8.1
20°-30°	872.1	11.9
30°-40°	891.4	12.1
40°-50°	513.5	7.0
50°-60°	88.5	1.2
60°-70°	3.2	0.0
70°-80°	0.0	0.0
80°-90°	1.6	0.0
90°-100°	280.0	3.8
100°-110°	847.0	11.5
110°-120°	826.8	11.3
120°-130°	675.6	9.2
130°-140°	551.5	7.5
140°-150°	429.3	5.9
150°-160°	309.5	4.2
160°-170°	189.5	2.6
170°-180°	64.0	0.9
0°-30°	1667.3	22.7
0°-40°	2558.7	34.9
0°-60°	3160.8	43.1
0°-90°	3165.6	43.1
90°-120°	1953.8	26.6
90°-150°	3610.3	49.2
90°-180°	4173.0	56.9
0°-180°	7338.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2117	2117	2117	2117	2117	
5°	2125	2120	2102	2130	2128	203
15°	2124	2142	2092	2095	2082	598
25°	1946	1964	1896	1877	1870	888
35°	1468	1479	1456	1428	1412	907
45°	619	712	728	688	581	479
55°	59	68	116	66	59	63
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	13	7	6	2
95°	35	110	528	195	123	41
105°	147	207	832	1579	1501	155
115°	262	312	673	1392	1635	259
125°	366	406	663	1099	1294	325
135°	439	485	659	948	1066	340
145°	513	551	659	815	892	321
155°	584	604	663	731	759	269
165°	639	646	666	692	700	180
175°	668	668	670	675	673	63
180°	670	670	670	670	670	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2116.7	2116.7	2116.7	2116.7	2116.7
2.5°	2126.0	2120.2	2103.1	2122.5	2118.4
5°	2125.1	2120.0	2101.8	2130.4	2128.3
7.5°	2123.9	2120.3	2107.6	2131.0	2125.8
10°	2127.3	2126.2	2105.0	2129.3	2124.1
12.5°	2129.0	2135.4	2102.5	2121.5	2112.2
15°	2124.1	2141.7	2092.3	2095.2	2081.7
17.5°	2100.4	2125.2	2059.5	2047.4	2028.4
20°	2069.0	2098.0	2025.6	2005.1	1988.5
22.5°	2025.0	2051.5	1982.4	1956.9	1943.6
25°	1946.2	1963.8	1896.4	1877.2	1870.0
27.5°	1834.6	1839.6	1788.8	1764.9	1755.6
30°	1748.2	1748.2	1710.1	1684.3	1666.7
32.5°	1647.4	1644.9	1617.7	1589.4	1571.8
35°	1467.6	1479.0	1455.9	1428.1	1412.5
37.5°	1273.0	1277.3	1259.8	1229.9	1216.8
40°	1125.6	1126.6	1106.5	1084.9	1065.2
42.5°	953.6	974.5	955.7	921.7	913.6
45°	619.4	711.6	728.5	688.0	581.3
47.5°	311.3	426.0	497.9	386.7	273.8
50°	175.8	244.1	367.4	204.5	166.2
52.5°	117.3	147.6	254.8	133.8	112.0
55°	59.3	67.6	116.5	65.5	59.3
57.5°	20.1	31.3	50.6	32.4	22.2
60°	3.2	13.5	28.6	10.4	1.1
62.5°	0.6	3.5	17.6	2.9	0.2
65°	0.0	0.0	1.1	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	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	0.4	2.5	1.5	1.3
90°	0.0	2.1	12.6	7.3	6.3
92.5°	11.8	47.6	171.0	56.7	40.8
95°	34.7	109.9	528.4	195.2	123.2
97.5°	67.2	139.8	832.9	551.1	335.6
100°	87.4	158.4	930.6	899.6	604.2
102.5°	110.1	178.7	910.3	1261.8	1005.9
105°	147.4	207.1	831.6	1579.3	1501.1
107.5°	182.7	239.8	755.8	1610.7	1701.3
110°	206.3	260.9	717.9	1571.2	1735.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	229.1	282.0	695.2	1504.8	1713.1
115°	262.1	312.5	672.7	1391.9	1634.8
117.5°	295.0	342.7	664.7	1286.1	1534.8
120°	316.9	362.1	662.1	1224.4	1463.2
122.5°	337.1	379.9	662.1	1170.1	1390.8
125°	366.3	406.5	663.2	1099.2	1293.7
127.5°	390.1	431.7	662.1	1045.7	1211.6
130°	405.3	448.5	662.1	1015.0	1165.3
132.5°	418.8	462.8	661.3	987.0	1125.7
135°	439.0	485.3	659.0	948.0	1066.3
137.5°	461.5	505.5	659.0	906.3	1016.0
140°	475.8	519.0	659.0	879.2	983.2
142.5°	490.1	531.7	658.1	854.5	945.3
145°	512.6	550.7	659.0	815.4	891.6
147.5°	535.2	567.5	660.2	783.2	841.7
150°	549.5	579.3	661.1	765.4	814.8
152.5°	563.0	589.5	661.9	750.0	790.3
155°	584.2	603.8	663.2	731.2	759.0
157.5°	602.8	618.6	664.4	717.3	736.7
160°	613.7	627.1	665.3	708.8	723.2
162.5°	624.7	634.7	666.1	701.1	713.1
165°	639.0	646.2	666.3	691.8	700.0
167.5°	651.2	654.9	667.6	684.5	688.0
170°	657.9	660.0	668.4	681.1	682.1
172.5°	662.1	663.4	668.4	677.7	677.9
175°	668.4	668.4	669.5	674.7	672.7
177.5°	671.4	670.6	669.7	672.2	670.5
180°	670.5	670.5	670.5	670.5	670.5



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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	0.00	0.02	0.39	1.05	2.42	0.00	0.00	0.01	0.66	2.04
	3H	0.00	0.00	0.20	0.78	2.18	0.00	0.00	0.00	0.40	1.80
	4H	0.00	0.00	0.11	0.64	2.05	0.00	0.00	0.00	0.26	1.67
	6H	0.00	0.00	0.00	0.49	1.91	0.00	0.00	0.00	0.11	1.52
	8H	0.00	0.00	0.00	0.42	1.83	0.00	0.00	0.00	0.04	1.45
	12H	0.00	0.00	0.00	0.32	1.75	0.00	0.00	0.00	0.00	1.37
4H	2H	0.00	0.00	0.12	0.65	2.06	0.00	0.00	0.00	0.27	1.68
	3H	0.00	0.00	0.00	0.38	1.79	0.00	0.00	0.00	0.00	1.41
	4H	0.00	0.00	0.00	0.21	1.65	0.00	0.00	0.00	0.00	1.27
	6H	0.00	0.00	0.00	0.06	1.50	0.00	0.00	0.00	0.00	1.12
	8H	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00	1.03
	12H	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00	0.94
8H	4H	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00	1.03
	6H	0.00	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.89
	8H	0.00	0.00	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.80
	12H	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.74
12H	4H	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00	0.94
	6H	0.00	0.00	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.80
	8H	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.74