

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: P853516

Luminaire Tested: SQ2-BBM-075U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853516
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-075U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

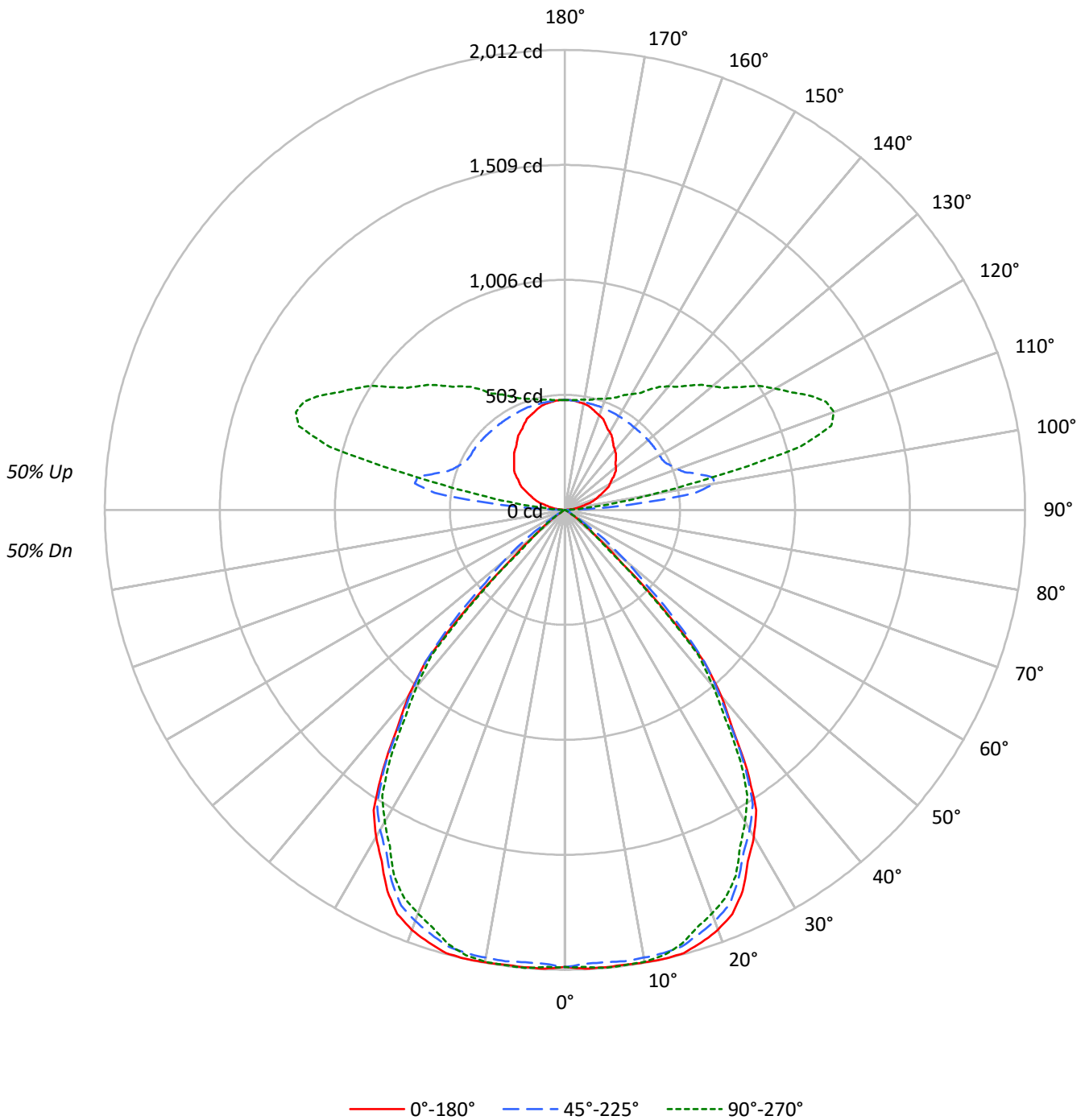
Lumens per Lamp: N/A
Luminaire Lumens: 5967.2 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.9
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	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	40	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	40	44	40	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	27	25	23
10	53	42	35	31	49	39	34	30	35	30	27	31	28	25	27	25	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32298	32298	32298
5°	32551	32195	32600
10°	32960	32616	32911
15°	33555	33053	32886
20°	33598	32892	32290
25°	32767	31930	31483
30°	30803	30130	29366
35°	27338	27122	26311
40°	22419	22040	21218
45°	13367	15721	12545
50°	4172	8721	3946
55°	1576	3099	1576
60°	97	872	32
65°	0	38	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: 15721 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.3	3.2
10°-20°	560.2	9.4
20°-30°	824.2	13.8
30°-40°	842.4	14.1
40°-50°	485.3	8.1
50°-60°	83.7	1.4
60°-70°	3.0	0.1
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	181.8	3.0
100°-110°	602.7	10.1
110°-120°	598.2	10.0
120°-130°	487.2	8.2
130°-140°	396.0	6.6
140°-150°	307.5	5.2
150°-160°	221.6	3.7
160°-170°	135.7	2.3
170°-180°	45.8	0.8
0°-30°	1575.7	26.4
0°-40°	2418.2	40.5
0°-60°	2987.2	50.1
0°-90°	2990.8	50.1
90°-120°	1382.7	23.2
90°-150°	2573.4	43.1
90°-180°	2977.0	49.9
0°-180°	5967.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2000	2000	2000	2000	2000	
5°	2008	2004	1986	2013	2011	192
15°	2007	2024	1977	1980	1967	565
25°	1839	1856	1792	1774	1767	839
35°	1387	1398	1376	1350	1335	857
45°	585	672	688	650	549	453
55°	56	64	110	62	56	59
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	4	4	1
95°	26	76	330	118	79	30
105°	106	150	603	1138	1064	111
115°	188	225	486	1011	1182	186
125°	263	292	477	794	937	234
135°	314	347	473	682	769	243
145°	365	392	472	586	642	229
155°	417	432	475	524	543	192
165°	458	463	477	496	501	129
175°	479	479	480	483	482	45
180°	481	481	481	481	481	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2000.4	2000.4	2000.4	2000.4	2000.4
2.5°	2009.2	2003.7	1987.6	2005.9	2002.0
5°	2008.4	2003.5	1986.4	2013.4	2011.4
7.5°	2007.2	2003.9	1991.8	2013.9	2009.0
10°	2010.4	2009.4	1989.4	2012.3	2007.4
12.5°	2012.0	2018.1	1987.0	2005.0	1996.2
15°	2007.4	2024.0	1977.4	1980.1	1967.4
17.5°	1985.0	2008.5	1946.4	1934.9	1916.9
20°	1955.4	1982.8	1914.3	1895.0	1879.3
22.5°	1913.7	1938.8	1873.5	1849.4	1836.9
25°	1839.3	1855.9	1792.3	1774.1	1767.2
27.5°	1733.8	1738.5	1690.6	1668.0	1659.2
30°	1652.2	1652.2	1616.1	1591.7	1575.1
32.5°	1556.9	1554.5	1528.9	1502.1	1485.4
35°	1387.0	1397.7	1376.0	1349.6	1334.9
37.5°	1203.0	1207.1	1190.6	1162.3	1150.0
40°	1063.7	1064.7	1045.7	1025.3	1006.7
42.5°	901.2	921.0	903.2	871.0	863.4
45°	585.4	672.5	688.5	650.2	549.4
47.5°	294.2	402.6	470.5	365.4	258.8
50°	166.1	230.7	347.2	193.3	157.1
52.5°	110.9	139.4	240.8	126.4	105.9
55°	56.0	63.9	110.1	61.9	56.0
57.5°	19.0	29.6	47.8	30.6	21.0
60°	3.0	12.8	27.0	9.8	1.0
62.5°	0.6	3.3	16.6	2.7	0.2
65°	0.0	0.0	1.0	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	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.0	4.0	4.0
92.5°	8.0	30.7	90.6	29.4	24.7
95°	25.9	76.5	329.5	117.6	78.6
97.5°	47.6	100.5	575.1	335.4	212.0
100°	62.7	113.3	665.9	571.9	379.2
102.5°	79.4	128.5	660.3	874.0	660.3
105°	105.5	150.3	603.2	1138.0	1064.0
107.5°	132.2	172.1	548.4	1164.8	1221.1
110°	147.3	187.2	520.6	1138.2	1252.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	163.2	202.4	503.8	1091.2	1236.2
115°	188.1	225.1	485.7	1011.2	1182.4
117.5°	212.8	245.7	479.1	934.7	1114.4
120°	227.9	260.0	476.8	886.8	1061.0
122.5°	241.5	272.8	476.8	847.5	1008.5
125°	262.8	292.0	476.8	794.5	936.6
127.5°	280.3	308.9	475.6	754.4	875.9
130°	290.6	320.8	474.8	731.0	840.0
132.5°	300.2	331.1	474.0	711.7	809.8
135°	314.5	346.6	472.8	681.8	769.4
137.5°	330.0	361.0	471.6	652.9	730.2
140°	340.4	370.6	470.8	633.6	704.7
142.5°	350.0	379.3	471.6	614.4	677.6
145°	365.3	392.5	471.8	586.5	642.0
147.5°	381.8	404.6	472.0	562.9	604.2
150°	392.2	412.6	472.8	549.2	584.3
152.5°	401.7	421.4	473.6	537.9	565.9
155°	417.0	431.6	474.8	524.0	543.4
157.5°	432.0	443.3	476.0	514.1	527.9
160°	439.9	449.7	476.8	506.9	517.6
162.5°	447.9	455.3	476.8	502.0	510.4
165°	457.8	462.7	476.8	495.8	500.6
167.5°	467.0	469.5	477.8	490.2	492.7
170°	471.8	472.8	477.8	487.7	488.7
172.5°	475.0	475.9	478.5	485.3	485.5
175°	478.7	478.7	479.7	482.7	481.7
177.5°	480.7	480.7	479.9	481.5	479.9
180°	480.7	480.7	480.7	480.7	480.7



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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	0.57	0.86	1.55	2.83	0.00	0.18	0.47	1.16	2.44
	3H	0.00	0.29	0.67	1.28	2.59	0.00	0.00	0.29	0.90	2.20
	4H	0.00	0.15	0.58	1.14	2.46	0.00	0.00	0.19	0.76	2.07
	6H	0.00	0.00	0.48	0.99	2.31	0.00	0.00	0.09	0.60	1.93
	8H	0.00	0.00	0.42	0.92	2.24	0.00	0.00	0.04	0.53	1.85
	12H	0.00	0.00	0.36	0.82	2.16	0.00	0.00	0.00	0.43	1.78
4H	2H	0.00	0.16	0.59	1.15	2.46	0.00	0.00	0.21	0.76	2.08
	3H	0.00	0.00	0.40	0.87	2.20	0.00	0.00	0.01	0.49	1.81
	4H	0.00	0.00	0.29	0.71	2.06	0.00	0.00	0.00	0.32	1.67
	6H	0.00	0.00	0.19	0.56	1.90	0.00	0.00	0.00	0.17	1.52
	8H	0.00	0.00	0.12	0.46	1.82	0.00	0.00	0.00	0.07	1.43
	12H	0.00	0.00	0.07	0.37	1.73	0.00	0.00	0.00	0.00	1.34
8H	4H	0.00	0.00	0.12	0.46	1.82	0.00	0.00	0.00	0.07	1.43
	6H	0.00	0.00	0.03	0.32	1.68	0.00	0.00	0.00	0.00	1.29
	8H	0.00	0.00	0.00	0.21	1.59	0.00	0.00	0.00	0.00	1.20
	12H	0.00	0.00	0.00	0.10	1.53	0.00	0.00	0.00	0.00	1.14
12H	4H	0.00	0.00	0.07	0.37	1.73	0.00	0.00	0.00	0.00	1.34
	6H	0.00	0.00	0.00	0.21	1.59	0.00	0.00	0.00	0.00	1.20
	8H	0.00	0.00	0.00	0.10	1.53	0.00	0.00	0.00	0.00	1.14