

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: P853552

Luminaire Tested: SQ2-BBM-125U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853552
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-125U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

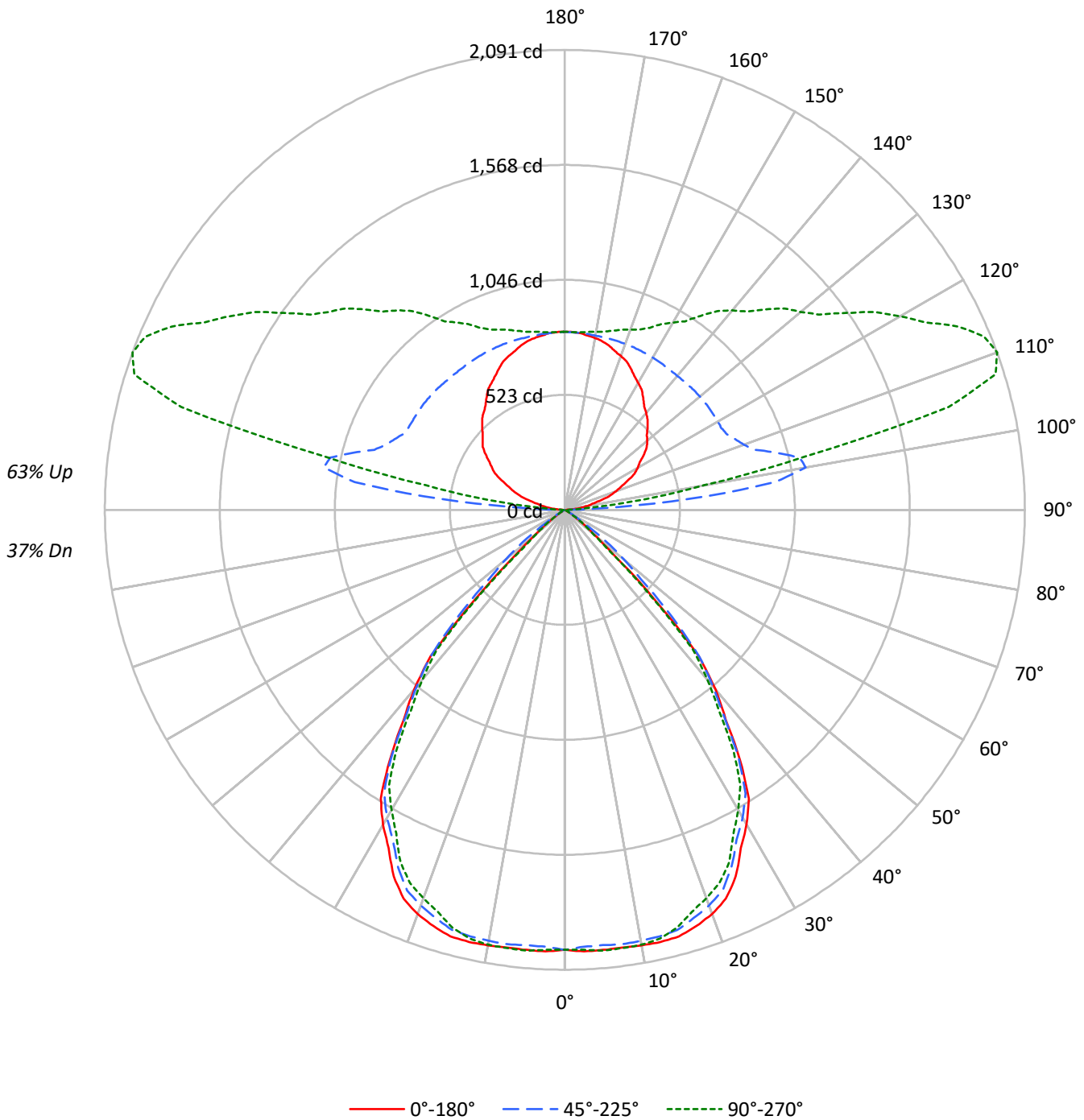
Lumens per Lamp: N/A
Luminaire Lumens: 7984.0 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 71.5
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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37
1	96	93	90	87	88	85	82	79	69	67	66	55	54	53	42	41	40	35
2	89	83	78	73	81	76	71	68	62	59	57	50	48	46	39	38	37	31
3	82	74	68	63	75	68	63	58	56	53	50	46	43	41	36	34	33	29
4	76	67	60	55	69	61	56	51	51	47	44	42	39	37	33	31	30	26
5	70	60	53	48	64	56	49	45	47	42	39	38	35	33	31	29	27	24
6	65	55	47	42	60	50	44	40	43	38	35	35	32	30	28	26	25	22
7	61	50	43	38	55	46	40	35	39	34	31	32	29	27	26	24	23	20
8	57	45	39	34	52	42	36	32	36	31	28	30	27	24	24	22	21	18
9	53	42	35	30	48	39	33	29	33	29	25	28	25	22	23	21	19	17
10	49	38	32	28	45	36	30	26	31	26	23	26	23	20	21	19	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32301	32301	32301
5°	32554	32198	32603
10°	32964	32619	32914
15°	33558	33056	32889
20°	33601	32895	32294
25°	32771	31932	31486
30°	30805	30134	29369
35°	27340	27124	26315
40°	22424	22042	21220
45°	13369	15723	12545
50°	4172	8724	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: 15723 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.3	2.4
10°-20°	560.3	7.0
20°-30°	824.3	10.3
30°-40°	842.5	10.6
40°-50°	485.4	6.1
50°-60°	83.7	1.0
60°-70°	3.0	0.0
70°-80°	0.0	0.0
80°-90°	1.2	0.0
90°-100°	309.5	3.9
100°-110°	1007.8	12.6
110°-120°	996.9	12.5
120°-130°	814.6	10.2
130°-140°	665.8	8.3
140°-150°	518.6	6.5
150°-160°	373.8	4.7
160°-170°	228.5	2.9
170°-180°	77.1	1.0
0°-30°	1575.9	19.7
0°-40°	2418.4	30.3
0°-60°	2987.5	37.4
0°-90°	2991.7	37.5
90°-120°	2314.2	29.0
90°-150°	4313.2	54.0
90°-180°	4993.0	62.5
0°-180°	7984.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2001	2001	2001	2001	2001	
5°	2009	2004	1987	2014	2012	192
15°	2008	2024	1978	1980	1968	565
25°	1840	1856	1792	1774	1767	839
35°	1387	1398	1376	1350	1335	857
45°	586	673	689	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	3	7	6	6	2
95°	42	127	567	202	124	49
105°	171	247	998	1907	1806	183
115°	316	378	813	1676	1972	313
125°	440	490	802	1323	1560	392
135°	532	587	798	1142	1288	411
145°	621	667	796	984	1077	389
155°	709	732	801	881	914	326
165°	773	780	803	833	843	218
175°	806	806	806	812	810	76
180°	809	809	809	809	809	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2000.6	2000.6	2000.6	2000.6	2000.6
2.5°	2009.4	2003.9	1987.8	2006.1	2002.2
5°	2008.6	2003.7	1986.6	2013.6	2011.6
7.5°	2007.4	2004.1	1992.0	2014.1	2009.2
10°	2010.6	2009.6	1989.6	2012.5	2007.6
12.5°	2012.2	2018.3	1987.2	2005.2	1996.4
15°	2007.6	2024.2	1977.6	1980.3	1967.6
17.5°	1985.2	2008.7	1946.6	1935.1	1917.1
20°	1955.6	1983.0	1914.5	1895.2	1879.5
22.5°	1913.9	1939.0	1873.7	1849.6	1837.1
25°	1839.5	1856.1	1792.4	1774.3	1767.4
27.5°	1734.0	1738.7	1690.8	1668.1	1659.3
30°	1652.3	1652.3	1616.3	1591.9	1575.3
32.5°	1557.0	1554.7	1529.0	1502.2	1485.6
35°	1387.1	1397.9	1376.1	1349.7	1335.1
37.5°	1203.2	1207.3	1190.8	1162.4	1150.1
40°	1063.9	1064.8	1045.8	1025.4	1006.8
42.5°	901.3	921.1	903.3	871.1	863.5
45°	585.5	672.6	688.6	650.2	549.4
47.5°	294.2	402.7	470.6	365.5	258.8
50°	166.1	230.7	347.3	193.3	157.1
52.5°	110.9	139.5	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	0.6	1.4	1.2	1.2
90°	0.0	2.9	7.0	6.0	6.0
92.5°	14.3	51.5	164.6	54.3	41.8
95°	41.8	127.4	567.3	202.3	124.4
97.5°	78.6	165.8	962.9	586.4	357.9
100°	102.5	188.2	1111.8	991.4	643.0
102.5°	129.6	212.1	1093.5	1466.7	1115.2
105°	171.2	247.1	998.3	1906.7	1805.5
107.5°	216.2	287.6	907.9	1944.9	2052.2
110°	248.8	314.0	864.9	1897.5	2091.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	275.9	340.3	837.9	1812.0	2061.7
115°	316.5	377.8	813.2	1675.9	1971.7
117.5°	358.3	413.6	803.6	1551.2	1845.7
120°	382.2	436.7	801.2	1474.6	1759.7
122.5°	405.3	459.0	802.0	1408.1	1673.7
125°	439.9	490.5	802.2	1323.2	1559.7
127.5°	469.6	521.4	802.0	1259.6	1456.8
130°	488.7	541.3	801.2	1223.3	1399.4
132.5°	505.4	560.3	800.4	1189.6	1354.8
135°	531.5	587.0	798.3	1142.0	1288.0
137.5°	557.0	612.8	796.1	1093.6	1223.3
140°	575.3	628.8	795.3	1060.8	1183.4
142.5°	592.8	644.0	795.3	1029.5	1138.9
145°	621.1	666.8	796.3	983.5	1076.9
147.5°	648.6	688.3	797.7	944.4	1016.6
150°	666.9	701.9	799.2	921.1	982.4
152.5°	685.2	714.0	800.0	903.3	952.1
155°	708.7	732.0	801.2	880.6	913.7
157.5°	731.0	747.7	802.4	863.9	887.0
160°	744.5	758.1	803.2	853.4	871.9
162.5°	756.4	767.0	803.2	844.6	858.4
165°	773.4	780.2	803.2	833.3	843.0
167.5°	785.3	789.6	803.4	824.8	829.9
170°	793.3	795.2	804.2	819.2	821.1
172.5°	798.9	800.0	805.8	816.0	815.6
175°	806.2	806.2	806.2	812.1	810.2
177.5°	809.2	808.4	807.6	811.5	808.4
180°	809.2	809.2	809.2	809.2	809.2



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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	0.00	0.00	0.23	1.68	0.00	0.00	0.00	0.00	1.29
	3H	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.00	1.05
	4H	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.92
	6H	0.00	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.77
	8H	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.69
	12H	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.00	0.00	0.62
4H	2H	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.00	0.92
	3H	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.66
	4H	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.00	0.52
	6H	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.36
	8H	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.28
	12H	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.19
8H	4H	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.28
	6H	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.14
	8H	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.05
	12H	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.19
	6H	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.05
	8H	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00