

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: P854391

Luminaire Tested: SQ2-WBM-125U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854391
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-125U-075D-930-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

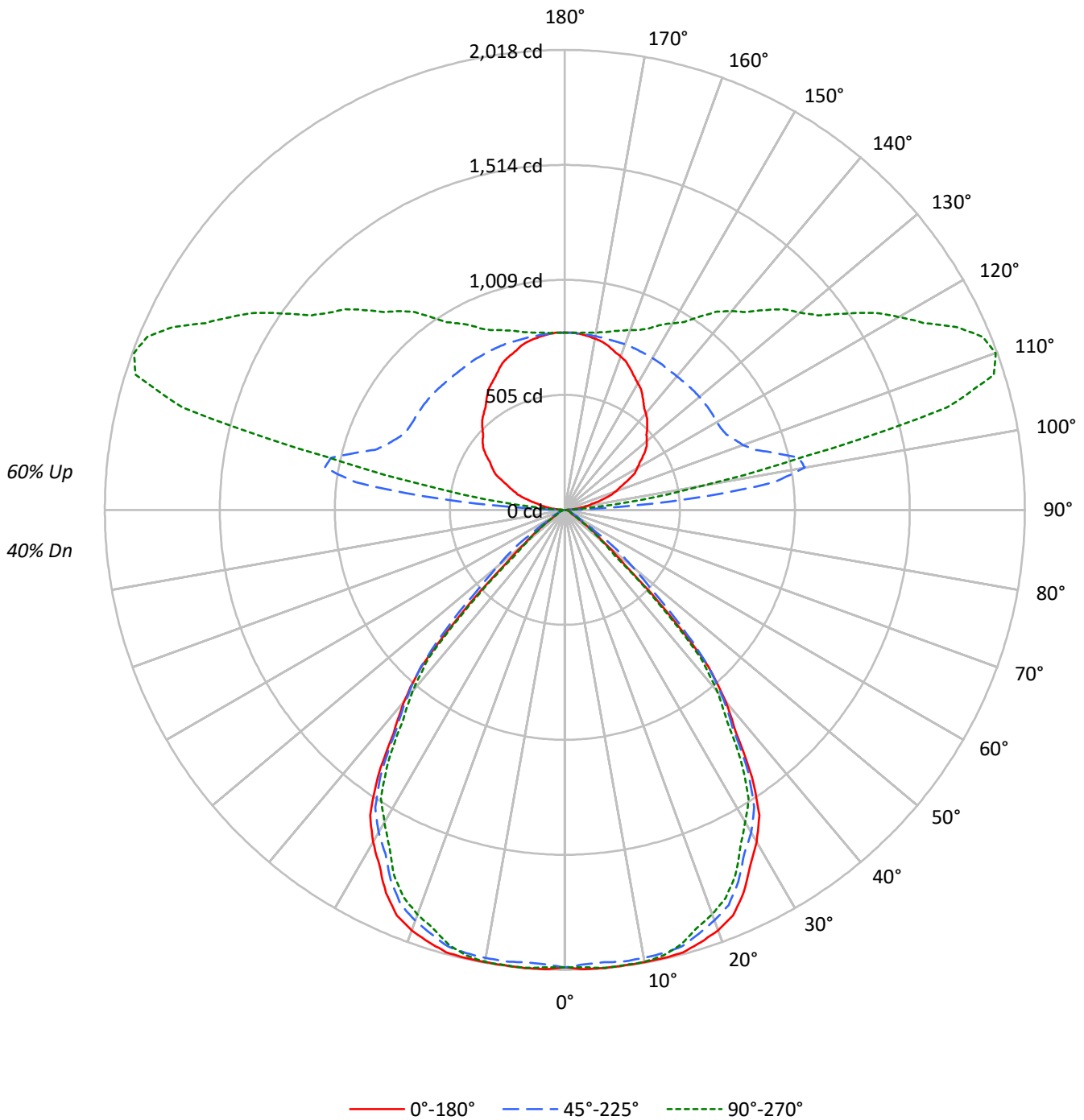
Lumens per Lamp: N/A
Luminaire Lumens: 7942.9 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47	40				
1	97	93	90	87	88	85	82	80	70	68	66	56	55	54	43	43	42	36				
2	89	83	78	73	81	76	72	68	63	60	57	51	49	47	40	39	38	33				
3	83	74	68	63	75	68	63	59	57	53	50	47	44	42	37	35	34	30				
4	76	67	60	55	70	62	56	51	52	47	44	43	40	37	34	32	31	27				
5	71	60	53	48	64	56	50	45	47	42	39	39	36	33	31	29	28	24				
6	65	55	47	42	60	51	44	40	43	38	35	36	32	30	29	27	25	22				
7	61	50	43	38	56	46	40	35	39	35	31	33	30	27	27	25	23	20				
8	57	46	38	34	52	42	36	32	36	31	28	30	27	25	25	23	21	19				
9	53	42	35	30	49	39	33	29	33	29	26	28	25	22	23	21	19	17				
10	50	38	32	27	46	36	30	26	31	26	23	26	23	20	22	19	18	16				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32411	32411	32411
5°	32707	32302	32692
10°	33037	32723	33023
15°	33588	33153	32991
20°	33747	32953	32459
25°	33054	32076	31545
30°	31362	30464	29496
35°	28206	27618	26613
40°	23123	22778	21905
45°	14458	16459	13579
50°	5657	9595	5172
55°	2790	4470	2764
60°	1305	2144	1182
65°	1177	1249	1104
70°	1138	1180	1090
75°	1142	1142	1023
80°	1069	1069	986
85°	1074	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16459 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.9	2.4
10°-20°	561.2	7.1
20°-30°	829.8	10.4
30°-40°	858.6	10.8
40°-50°	516.4	6.5
50°-60°	123.6	1.6
60°-70°	33.8	0.4
70°-80°	18.9	0.2
80°-90°	6.8	0.1
90°-100°	297.7	3.7
100°-110°	969.3	12.2
110°-120°	958.8	12.1
120°-130°	783.5	9.9
130°-140°	640.4	8.1
140°-150°	498.8	6.3
150°-160°	359.5	4.5
160°-170°	219.7	2.8
170°-180°	74.1	0.9
0°-30°	1582.9	19.9
0°-40°	2441.5	30.7
0°-60°	3081.5	38.8
0°-90°	3141.0	39.5
90°-120°	2225.8	28.0
90°-150°	4148.5	52.2
90°-180°	4802.0	60.5
0°-180°	7942.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2007	2007	2007	2007	2007	
5°	2018	2011	1993	2020	2017	192
15°	2009	2024	1983	1983	1974	566
25°	1855	1870	1800	1781	1771	848
35°	1431	1429	1401	1369	1350	878
45°	633	719	721	685	595	490
55°	99	111	159	106	98	99
65°	31	32	33	31	29	31
75°	18	18	18	17	16	19
85°	6	6	5	5	5	6
90°	0	3	7	6	6	2
95°	40	123	546	194	120	47
105°	165	238	960	1834	1737	176
115°	304	363	782	1612	1896	301
125°	423	472	772	1273	1500	377
135°	511	565	768	1098	1239	395
145°	597	641	766	946	1036	374
155°	682	704	771	847	879	314
165°	744	750	772	802	811	209
175°	775	775	775	781	779	74
180°	778	778	778	778	778	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2007.4	2007.4	2007.4	2007.4	2007.4
2.5°	2017.4	2012.2	1995.9	2012.7	2009.0
5°	2018.0	2011.4	1993.0	2019.9	2017.1
7.5°	2015.9	2013.1	1999.0	2019.3	2014.9
10°	2015.1	2016.1	1995.9	2017.0	2014.2
12.5°	2014.4	2022.1	1992.8	2009.2	2002.6
15°	2009.4	2024.4	1983.4	1983.2	1973.7
17.5°	1988.0	2005.9	1951.0	1936.0	1924.5
20°	1964.1	1982.0	1917.9	1893.8	1889.1
22.5°	1926.4	1945.8	1877.1	1850.6	1842.9
25°	1855.4	1870.4	1800.5	1781.0	1770.7
27.5°	1760.7	1769.0	1703.3	1681.1	1666.8
30°	1682.2	1685.9	1634.0	1604.7	1582.1
32.5°	1589.0	1592.8	1547.0	1519.3	1501.2
35°	1431.0	1429.1	1401.2	1369.0	1350.2
37.5°	1233.3	1236.0	1213.9	1188.4	1169.4
40°	1097.1	1098.9	1080.7	1044.0	1039.3
42.5°	930.8	959.0	934.4	905.8	883.8
45°	633.2	718.8	720.8	685.1	594.7
47.5°	357.6	455.1	511.4	408.8	299.1
50°	225.2	291.1	382.0	242.6	205.9
52.5°	159.7	193.2	288.1	170.7	151.3
55°	99.1	111.4	158.8	105.7	98.2
57.5°	58.9	71.5	90.3	71.5	59.7
60°	40.4	50.8	66.4	46.9	36.6
62.5°	35.0	39.4	52.5	37.1	33.5
65°	30.8	31.7	32.7	30.8	28.9
67.5°	27.1	28.1	27.3	27.1	25.4
70°	24.1	25.0	25.0	24.0	23.1
72.5°	21.7	22.7	21.9	21.7	20.0
75°	18.3	18.3	18.3	17.3	16.4
77.5°	13.9	14.8	13.9	13.8	12.9
80°	11.5	12.5	11.5	11.5	10.6
82.5°	9.2	9.4	9.2	9.2	8.3
85°	5.8	5.8	4.8	4.8	4.8
87.5°	1.5	2.9	2.9	2.7	2.7
90°	0.0	2.8	6.7	5.7	5.7
92.5°	13.8	49.5	158.3	52.2	40.2
95°	40.2	122.6	545.7	194.5	119.7
97.5°	75.6	159.5	926.1	564.0	344.2
100°	98.6	181.0	1069.3	953.5	618.4
102.5°	124.6	204.0	1051.7	1410.7	1072.6
105°	164.7	237.7	960.2	1833.9	1736.6
107.5°	207.9	276.6	873.3	1870.6	1973.8
110°	239.3	302.0	831.9	1825.0	2011.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	265.4	327.3	805.9	1742.8	1983.0
115°	304.4	363.4	782.1	1611.9	1896.4
117.5°	344.6	397.8	772.9	1492.0	1775.2
120°	367.6	420.0	770.6	1418.3	1692.5
122.5°	389.8	441.5	771.4	1354.3	1609.8
125°	423.1	471.8	771.6	1272.6	1500.1
127.5°	451.7	501.5	771.4	1211.5	1401.1
130°	470.0	520.6	770.6	1176.5	1346.0
132.5°	486.1	538.9	769.9	1144.1	1303.1
135°	511.2	564.6	767.8	1098.3	1238.8
137.5°	535.7	589.4	765.7	1051.8	1176.5
140°	553.3	604.8	764.9	1020.3	1138.2
142.5°	570.2	619.4	764.9	990.1	1095.3
145°	597.4	641.4	765.8	945.9	1035.8
147.5°	623.8	662.0	767.2	908.3	977.8
150°	641.4	675.1	768.7	885.9	944.9
152.5°	659.0	686.7	769.5	868.8	915.8
155°	681.6	704.1	770.6	847.0	878.8
157.5°	703.0	719.1	771.8	830.9	853.1
160°	716.1	729.2	772.5	820.8	838.6
162.5°	727.6	737.7	772.5	812.3	825.6
165°	743.8	750.4	772.5	801.5	810.8
167.5°	755.3	759.4	772.7	793.3	798.2
170°	763.0	764.8	773.5	787.9	789.8
172.5°	768.3	769.5	775.0	784.8	784.4
175°	775.4	775.4	775.4	781.1	779.2
177.5°	778.3	777.5	776.8	780.5	777.5
180°	778.3	778.3	778.3	778.3	778.3



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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	3.90	4.57	4.97	5.62	7.04	3.55	4.22	4.62	5.28	6.70
	3H	4.39	4.99	5.47	6.05	7.49	4.06	4.65	5.13	5.71	7.16
	4H	4.65	5.22	5.74	6.28	7.73	4.30	4.86	5.39	5.92	7.37
	6H	4.88	5.40	5.98	6.46	7.92	4.50	5.02	5.60	6.08	7.54
	8H	4.96	5.45	6.06	6.53	7.98	4.56	5.05	5.66	6.13	7.59
	12H	5.01	5.47	6.11	6.54	8.02	4.59	5.06	5.70	6.13	7.61
4H	2H	3.90	4.46	4.99	5.52	6.97	3.58	4.14	4.68	5.21	6.66
	3H	4.60	5.07	5.70	6.16	7.62	4.30	4.77	5.40	5.86	7.32
	4H	5.00	5.43	6.11	6.51	7.99	4.68	5.10	5.78	6.18	7.66
	6H	5.38	5.74	6.49	6.84	8.32	5.02	5.38	6.13	6.49	7.96
	8H	5.52	5.86	6.63	6.95	8.44	5.14	5.48	6.25	6.57	8.06
	12H	5.61	5.91	6.74	7.02	8.52	5.20	5.51	6.33	6.62	8.11
8H	4H	5.09	5.42	6.20	6.52	8.01	4.78	5.12	5.89	6.22	7.71
	6H	5.59	5.87	6.72	7.01	8.49	5.26	5.53	6.39	6.67	8.16
	8H	5.82	6.06	6.96	7.18	8.69	5.46	5.70	6.59	6.82	8.32
	12H	5.99	6.21	7.13	7.32	8.87	5.59	5.80	6.73	6.92	8.46
12H	4H	5.05	5.36	6.18	6.47	7.96	4.76	5.06	5.88	6.17	7.67
	6H	5.61	5.85	6.75	6.97	8.48	5.29	5.53	6.42	6.65	8.15
	8H	5.86	6.07	7.00	7.19	8.73	5.51	5.72	6.64	6.83	8.38