

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: P854889

Luminaire Tested: SQ2-PR1-125U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854889
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-125U-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

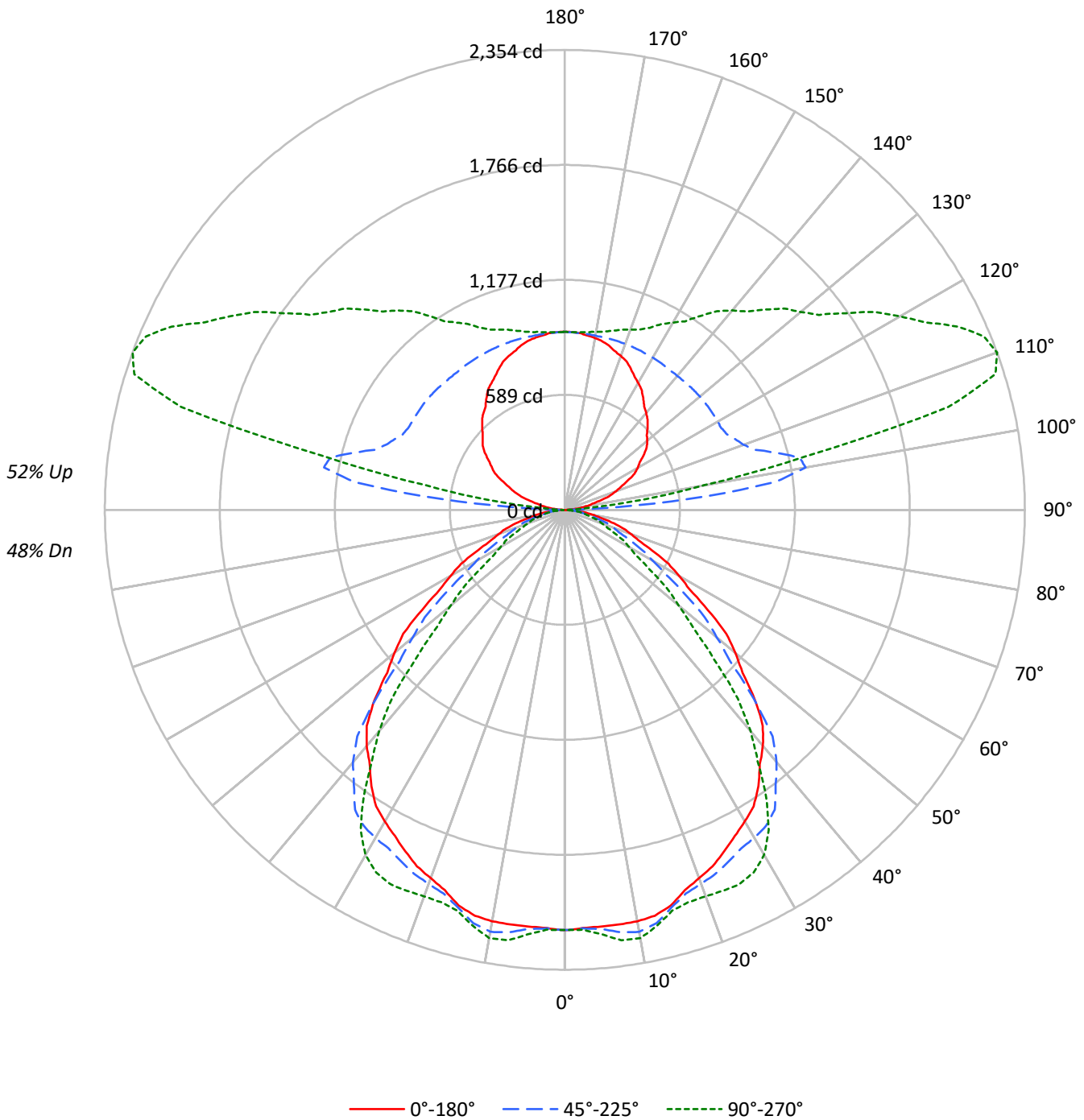
Lumens per Lamp: N/A
Luminaire Lumens: 10795.7 lumens
Efficiency: N/A
Efficacy: 132.5 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.5
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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	98	94	90	87	90	87	83	81	73	71	69	60	59	58	49	48	47	42
2	90	83	77	72	82	76	71	67	65	61	58	54	51	49	44	42	40	36
3	82	73	66	61	75	68	62	57	57	53	49	48	45	42	39	37	35	31
4	75	65	57	52	69	60	54	49	51	46	42	43	39	36	35	33	31	27
5	69	58	50	45	64	54	47	42	46	41	37	39	35	32	32	29	27	24
6	64	52	44	39	59	49	42	37	42	36	32	35	31	28	29	26	24	21
7	59	47	40	34	54	44	37	32	38	33	29	32	28	25	27	24	21	19
8	55	43	35	30	51	40	33	29	35	29	25	29	25	22	25	22	19	17
9	51	39	32	27	47	37	30	26	32	27	23	27	23	20	23	20	17	15
10	48	36	29	24	44	34	27	23	29	24	21	25	21	18	21	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34735	34735	34735
5°	34689	34903	35329
10°	35056	35954	36493
15°	35042	35226	35519
20°	34477	35005	36173
25°	34379	35356	37661
30°	34342	36143	38024
35°	34016	36914	35400
40°	33232	35544	31154
45°	31444	31195	24638
50°	28587	25503	19113
55°	25123	20991	14877
60°	21739	16785	12248
65°	18770	13910	10724
70°	16872	12321	9522
75°	15458	10674	8752
80°	13454	8563	8563
85°	9744	7725	4057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 33992 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.8	1.9
10°-20°	601.4	5.6
20°-30°	929.6	8.6
30°-40°	1118.1	10.4
40°-50°	1004.0	9.3
50°-60°	672.6	6.2
60°-70°	391.2	3.6
70°-80°	200.9	1.9
80°-90°	50.6	0.5
90°-100°	348.4	3.2
100°-110°	1134.3	10.5
110°-120°	1122.0	10.4
120°-130°	916.9	8.5
130°-140°	749.4	6.9
140°-150°	583.7	5.4
150°-160°	420.8	3.9
160°-170°	257.2	2.4
170°-180°	86.8	0.8
0°-30°	1738.8	16.1
0°-40°	2856.9	26.5
0°-60°	4533.5	42.0
0°-90°	5176.2	47.9
90°-120°	2604.7	24.1
90°-150°	4854.8	45.0
90°-180°	5619.0	52.0
0°-180°	10795.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2151	2151	2151	2151	2151	
5°	2140	2177	2154	2158	2180	204
15°	2096	2182	2107	2114	2125	589
25°	1930	2007	1985	2058	2114	890
35°	1726	1741	1873	1837	1796	1076
45°	1377	1489	1366	1152	1079	1053
55°	892	927	746	576	528	802
65°	491	502	364	296	281	497
75°	248	241	171	145	140	263
85°	53	42	42	28	22	65
90°	0	3	8	7	7	4
95°	47	144	639	228	140	55
105°	193	278	1124	2146	2032	206
115°	356	425	915	1886	2219	353
125°	495	552	903	1489	1756	441
135°	598	661	898	1285	1450	462
145°	699	750	896	1107	1212	438
155°	798	824	902	991	1028	367
165°	870	878	904	938	949	245
175°	908	908	908	914	912	86
180°	911	911	911	911	911	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2151.3	2151.3	2151.3	2151.3	2151.3
2.5°	2142.6	2168.2	2144.3	2146.2	2151.3
5°	2140.3	2176.8	2153.5	2158.4	2179.8
7.5°	2139.9	2191.8	2180.7	2194.0	2222.4
10°	2138.2	2200.3	2193.0	2195.8	2225.9
12.5°	2127.6	2200.1	2166.7	2163.9	2180.2
15°	2096.4	2182.3	2107.4	2114.3	2124.9
17.5°	2041.6	2131.3	2060.0	2084.2	2105.3
20°	2006.6	2094.5	2037.3	2068.7	2105.3
22.5°	1975.0	2062.9	2016.2	2060.4	2110.5
25°	1929.8	2007.0	1984.6	2058.2	2114.0
27.5°	1882.4	1927.9	1954.3	2053.0	2092.0
30°	1842.0	1872.1	1938.6	2024.4	2039.5
32.5°	1798.2	1816.3	1917.6	1962.2	1943.0
35°	1725.8	1740.9	1872.8	1836.7	1796.0
37.5°	1639.9	1670.8	1772.4	1668.6	1621.9
40°	1576.7	1628.2	1686.4	1531.7	1478.1
42.5°	1499.6	1581.9	1572.4	1375.2	1309.6
45°	1377.1	1488.7	1366.2	1151.8	1079.0
47.5°	1232.9	1347.4	1146.9	955.5	887.2
50°	1138.1	1230.4	1015.3	836.0	760.9
52.5°	1041.7	1108.1	903.0	723.8	655.7
55°	892.5	926.8	745.7	575.7	528.5
57.5°	755.7	777.5	609.2	465.0	430.2
60°	673.2	688.2	519.8	407.3	379.3
62.5°	597.8	609.4	447.8	358.3	337.3
65°	491.3	501.9	364.1	295.7	280.7
67.5°	406.6	412.1	299.5	245.7	231.6
70°	357.4	359.5	261.0	212.4	201.7
72.5°	313.6	310.6	224.1	184.5	177.2
75°	247.8	241.4	171.1	144.6	140.3
77.5°	185.1	178.2	120.2	111.4	111.4
80°	144.7	136.1	92.1	92.1	92.1
82.5°	107.9	95.9	71.0	71.0	69.3
85°	52.6	41.9	41.7	28.4	21.9
87.5°	14.0	14.7	6.8	6.6	6.6
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.2	58.0	185.3	61.1	47.0
95°	47.0	143.5	638.6	227.7	140.1
97.5°	88.5	186.7	1083.7	660.1	402.8
100°	115.4	211.8	1251.4	1115.8	723.7
102.5°	145.9	238.8	1230.7	1650.9	1255.1
105°	192.7	278.1	1123.6	2146.2	2032.2
107.5°	243.3	323.7	1022.0	2189.2	2309.8
110°	280.1	353.4	973.5	2135.8	2353.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	310.6	383.1	943.1	2039.5	2320.5
115°	356.3	425.2	915.3	1886.3	2219.3
117.5°	403.3	465.5	904.5	1746.1	2077.4
120°	430.2	491.5	901.8	1659.8	1980.7
122.5°	456.2	516.7	902.7	1584.8	1883.9
125°	495.2	552.1	902.9	1489.3	1755.5
127.5°	528.6	586.8	902.7	1417.7	1639.7
130°	550.1	609.2	901.8	1376.9	1575.1
132.5°	568.9	630.7	900.9	1338.9	1524.9
135°	598.2	660.6	898.5	1285.3	1449.7
137.5°	626.9	689.8	896.0	1230.9	1376.9
140°	647.5	707.8	895.1	1194.0	1332.0
142.5°	667.2	724.9	895.1	1158.7	1281.8
145°	699.1	750.5	896.3	1107.0	1212.2
147.5°	729.9	774.7	897.8	1063.0	1144.3
150°	750.6	790.0	899.7	1036.7	1105.8
152.5°	771.2	803.7	900.4	1016.7	1071.6
155°	797.7	823.9	901.8	991.2	1028.4
157.5°	822.8	841.5	903.2	972.4	998.4
160°	838.0	853.3	904.1	960.6	981.4
162.5°	851.4	863.2	904.1	950.5	966.1
165°	870.5	878.2	904.1	938.0	948.8
167.5°	883.9	888.7	904.3	928.4	934.1
170°	892.9	895.0	905.2	922.0	924.2
172.5°	899.2	900.4	907.0	918.4	918.0
175°	907.5	907.5	907.5	914.1	911.9
177.5°	910.8	909.9	909.0	913.4	909.9
180°	910.8	910.8	910.8	910.8	910.8

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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	18.91	19.72	19.89	20.71	22.01	15.64	16.44	16.62	17.43	18.73
	3H	20.14	20.86	21.13	21.86	23.18	16.70	17.42	17.69	18.41	19.74
	4H	20.59	21.27	21.60	22.27	23.60	17.09	17.77	18.10	18.78	20.11
	6H	20.90	21.53	21.92	22.53	23.88	17.42	18.05	18.44	19.05	20.40
	8H	20.98	21.58	22.01	22.60	23.94	17.51	18.10	18.53	19.12	20.47
	12H	21.01	21.57	22.04	22.59	23.96	17.51	18.08	18.54	19.09	20.46
4H	2H	18.98	19.66	20.00	20.66	22.00	16.20	16.88	17.21	17.88	19.21
	3H	20.45	21.01	21.47	22.04	23.39	17.46	18.02	18.48	19.05	20.40
	4H	21.04	21.56	22.07	22.58	23.95	17.96	18.48	18.99	19.50	20.87
	6H	21.49	21.93	22.53	22.98	24.35	18.40	18.84	19.44	19.88	21.25
	8H	21.62	22.03	22.66	23.07	24.45	18.52	18.93	19.56	19.97	21.35
	12H	21.67	22.04	22.73	23.10	24.49	18.54	18.91	19.59	19.96	21.35
8H	4H	21.06	21.48	22.10	22.52	23.90	18.26	18.68	19.31	19.72	21.10
	6H	21.61	21.95	22.67	23.03	24.41	18.80	19.14	19.86	20.22	21.60
	8H	21.81	22.11	22.88	23.17	24.57	18.98	19.28	20.05	20.35	21.75
	12H	21.91	22.17	22.98	23.23	24.67	19.04	19.31	20.12	20.37	21.81
12H	4H	21.02	21.39	22.08	22.45	23.83	18.28	18.65	19.34	19.70	21.09
	6H	21.60	21.90	22.67	22.96	24.36	18.86	19.16	19.93	20.22	21.62
	8H	21.81	22.07	22.88	23.13	24.57	19.06	19.33	20.14	20.39	21.83