

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: P854917

Luminaire Tested: SQ2-PP3-125U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854917
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-125U-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

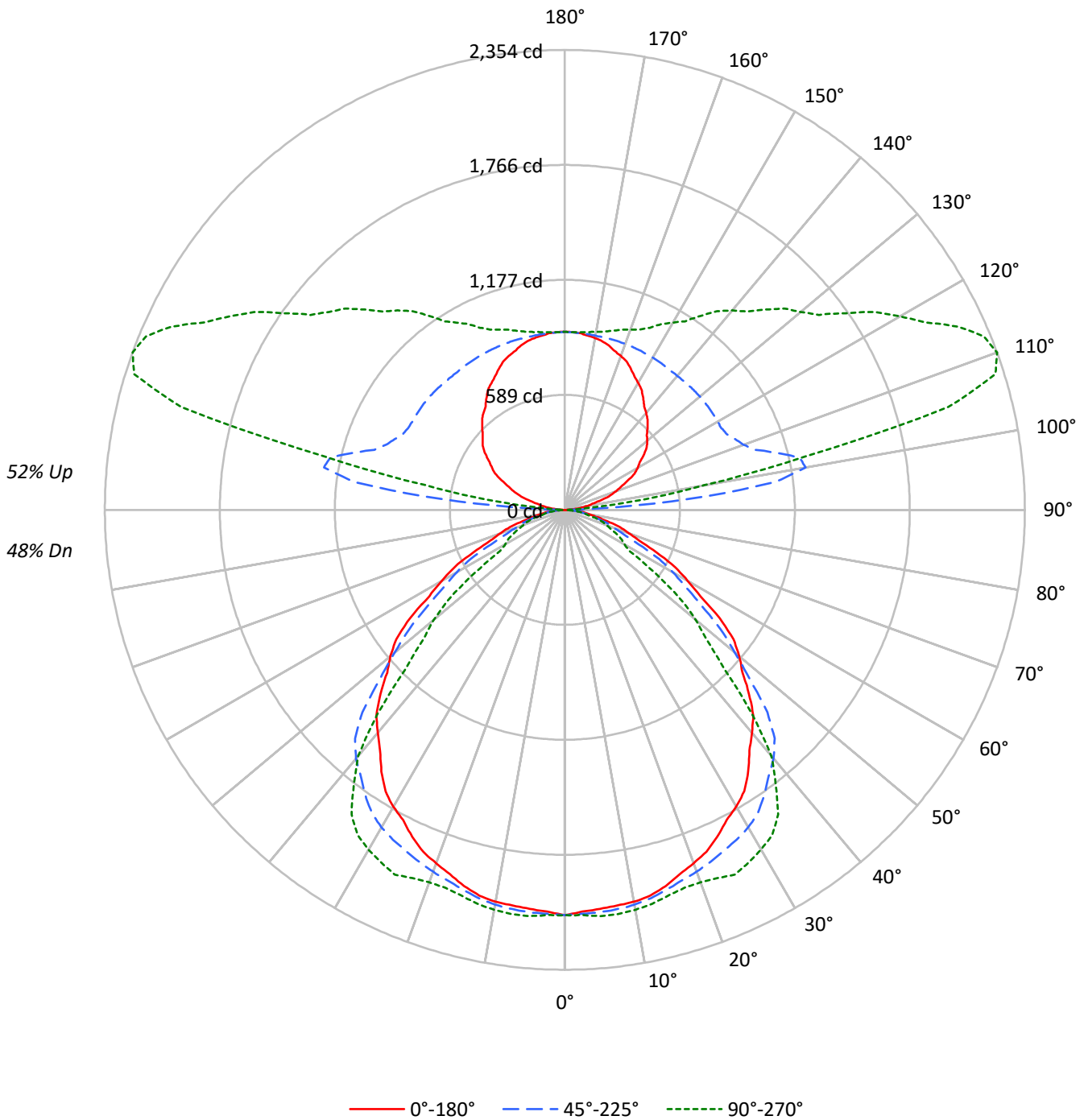
Lumens per Lamp: N/A
Luminaire Lumens: 10845.0 lumens
Efficiency: N/A
Efficacy: 133.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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									
RC	80									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	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	82	77	72	82	76	71	67	64	61	58	54	51	49	44	42	40	36																			
3	82	73	66	60	75	67	61	56	57	53	49	48	45	42	39	37	35	31																			
4	75	65	57	51	69	60	53	48	51	46	42	43	39	36	35	32	30	27																			
5	69	58	50	44	63	54	47	41	46	41	36	39	35	31	32	29	27	23																			
6	64	52	44	38	59	48	41	36	41	36	32	35	31	28	29	26	24	21																			
7	59	47	39	34	54	44	37	32	38	32	28	32	28	25	26	23	21	18																			
8	55	43	35	30	50	40	33	28	34	29	25	29	25	22	24	21	19	16																			
9	51	39	32	27	47	36	30	25	31	26	22	27	23	20	22	19	17	15																			
10	48	36	29	24	44	33	27	23	29	24	20	25	21	18	21	18	15	13																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33495	33495	33495
5°	33232	33516	33836
10°	33401	33652	34083
15°	33320	33650	34165
20°	33082	33874	34854
25°	32895	34301	36685
30°	32708	34998	37449
35°	32244	35096	37517
40°	31386	35036	34665
45°	30446	33449	26389
50°	29248	28535	21979
55°	27220	24014	15803
60°	23441	20605	11328
65°	19771	15916	11144
70°	16461	12529	10664
75°	13949	10805	9987
80°	11827	9382	8963
85°	9337	7725	4872

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 33449 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.5	1.8
10°-20°	571.7	5.3
20°-30°	895.6	8.3
30°-40°	1104.8	10.2
40°-50°	1040.2	9.6
50°-60°	736.5	6.8
60°-70°	419.7	3.9
70°-80°	207.6	1.9
80°-90°	51.8	0.5
90°-100°	348.4	3.2
100°-110°	1134.3	10.5
110°-120°	1122.0	10.3
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°	1664.8	15.4
0°-40°	2769.7	25.5
0°-60°	4546.4	41.9
0°-90°	5225.5	48.2
90°-120°	2604.7	24.0
90°-150°	4854.8	44.8
90°-180°	5619.0	51.8
0°-180°	10845.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2074	2074	2074	2074	2074	
5°	2050	2087	2068	2073	2088	195
15°	1993	2021	2013	2033	2044	562
25°	1846	1894	1925	2003	2059	850
35°	1636	1681	1781	1882	1903	1020
45°	1333	1434	1465	1241	1156	1026
55°	967	1025	853	643	561	853
65°	518	545	417	294	292	520
75°	224	247	173	162	160	242
85°	50	46	42	33	26	59
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°	2074.5	2074.5	2074.5	2074.5	2074.5
2.5°	2058.8	2088.0	2069.3	2072.8	2076.3
5°	2050.4	2086.8	2067.9	2072.7	2087.7
7.5°	2042.5	2079.8	2061.4	2069.3	2087.7
10°	2037.3	2069.4	2052.6	2063.9	2078.9
12.5°	2021.5	2051.9	2036.9	2051.6	2064.9
15°	1993.4	2021.3	2013.1	2033.1	2043.9
17.5°	1955.2	1989.1	1989.0	2017.3	2028.5
20°	1925.4	1966.2	1971.5	2007.0	2028.5
22.5°	1893.8	1941.4	1950.4	2003.8	2040.8
25°	1846.5	1893.6	1925.4	2003.4	2059.2
27.5°	1791.2	1838.0	1903.4	1990.8	2035.0
30°	1754.4	1799.4	1877.2	1968.0	2008.7
32.5°	1708.7	1755.5	1838.5	1936.3	1973.7
35°	1635.9	1680.9	1780.6	1882.1	1903.4
37.5°	1552.1	1603.3	1714.8	1771.5	1772.7
40°	1489.1	1555.5	1662.3	1672.6	1644.7
42.5°	1427.7	1512.9	1588.6	1542.3	1418.4
45°	1333.4	1434.1	1464.9	1241.4	1155.7
47.5°	1232.9	1332.3	1283.3	1041.2	982.0
50°	1164.4	1258.9	1136.0	930.7	875.0
52.5°	1087.2	1171.3	1004.4	824.8	739.9
55°	967.0	1025.0	853.1	642.9	561.4
57.5°	822.3	863.1	729.4	482.6	391.2
60°	725.9	758.0	638.1	396.0	350.8
62.5°	638.1	666.9	543.4	343.9	328.1
65°	517.5	545.4	416.6	293.9	291.7
67.5°	411.9	442.3	319.7	256.5	253.9
70°	348.7	380.8	265.4	230.2	225.9
72.5°	296.0	326.5	225.0	202.2	199.6
75°	223.6	247.3	173.2	162.2	160.1
77.5°	162.2	177.3	128.9	123.2	121.1
80°	127.2	133.6	100.9	98.6	96.4
82.5°	95.7	93.5	76.3	74.1	70.2
85°	50.4	46.1	41.7	32.8	26.3
87.5°	15.8	16.4	8.6	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	19.57	20.39	20.55	21.37	22.67	15.97	16.78	16.95	17.77	19.07
	3H	20.66	21.39	21.65	22.39	23.71	17.07	17.80	18.06	18.79	20.11
	4H	21.00	21.69	22.01	22.69	24.02	17.53	18.22	18.53	19.22	20.55
	6H	21.21	21.85	22.23	22.85	24.19	17.87	18.50	18.89	19.51	20.85
	8H	21.26	21.86	22.28	22.89	24.22	17.96	18.56	18.98	19.58	20.92
	12H	21.27	21.85	22.30	22.86	24.22	17.97	18.54	18.99	19.56	20.92
4H	2H	19.67	20.36	20.68	21.36	22.69	16.67	17.36	17.68	18.36	19.69
	3H	20.98	21.55	22.00	22.58	23.92	17.92	18.49	18.94	19.52	20.86
	4H	21.45	21.97	22.48	22.99	24.36	18.47	18.99	19.50	20.02	21.38
	6H	21.78	22.23	22.82	23.28	24.64	18.91	19.36	19.95	20.40	21.77
	8H	21.88	22.29	22.91	23.33	24.71	19.03	19.45	20.07	20.49	21.86
	12H	21.91	22.29	22.97	23.34	24.72	19.06	19.43	20.11	20.49	21.87
8H	4H	21.46	21.88	22.50	22.92	24.30	18.74	19.16	19.78	20.20	21.58
	6H	21.89	22.24	22.95	23.32	24.69	19.29	19.63	20.35	20.71	22.09
	8H	22.05	22.35	23.12	23.42	24.81	19.47	19.78	20.54	20.84	22.23
	12H	22.13	22.40	23.21	23.46	24.90	19.54	19.81	20.62	20.87	22.31
12H	4H	21.42	21.80	22.48	22.85	24.23	18.75	19.13	19.80	20.18	21.56
	6H	21.88	22.19	22.95	23.25	24.64	19.34	19.64	20.41	20.71	22.10
	8H	22.05	22.32	23.12	23.38	24.81	19.55	19.81	20.62	20.87	22.31