

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: P854909

Luminaire Tested: SQ2-PR1-025U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854909
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-025U-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

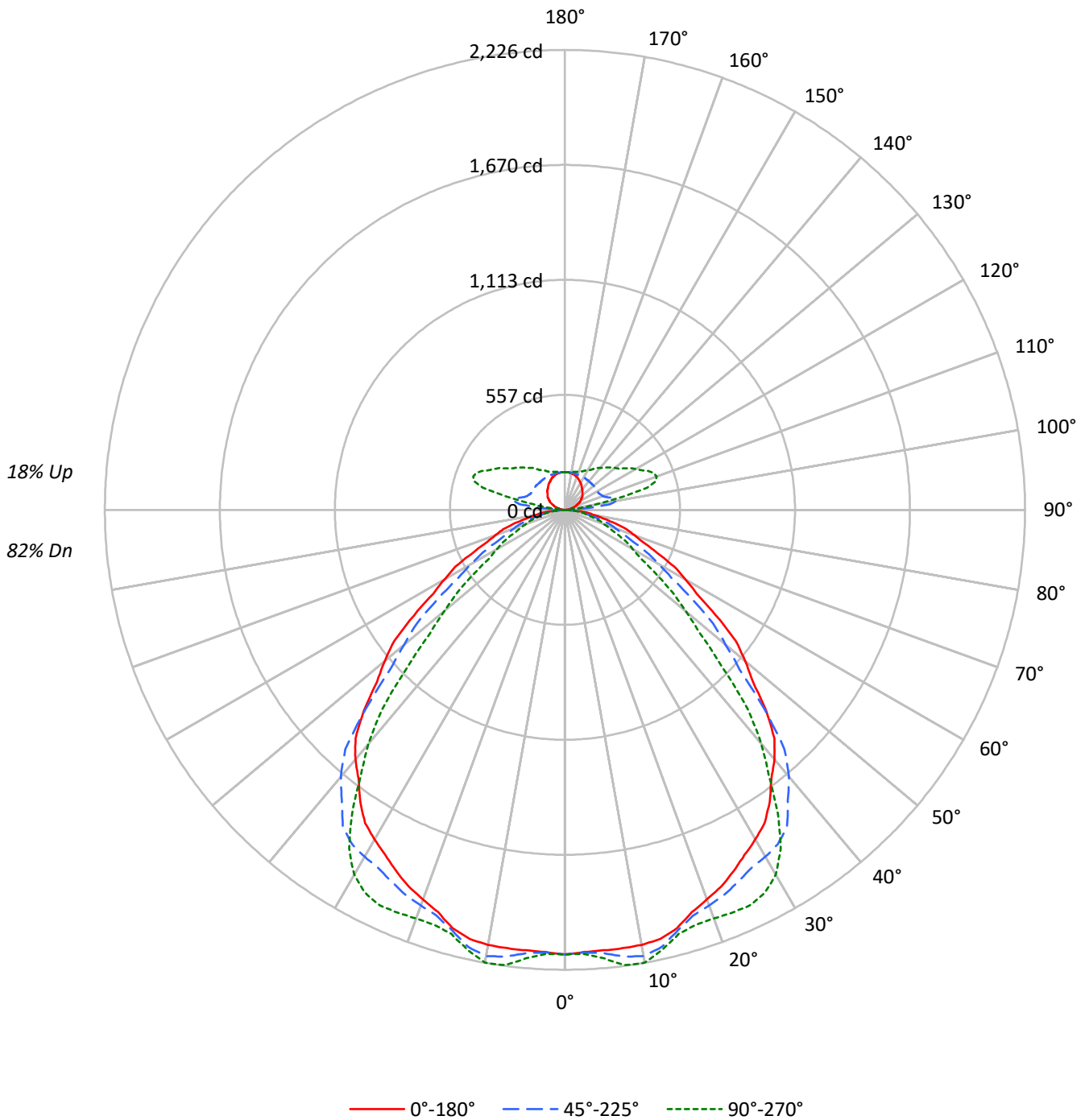
Lumens per Lamp: N/A
Luminaire Lumens: 6309.7 lumens
Efficiency: N/A
Efficacy: 140.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45
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

TEST NUMBER: P854909

CATALOG NUMBER: SQ2-PR1-025U-100D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854909

CATALOG NUMBER: SQ2-PR1-025U-100D-830-UNV-STD-W-4

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
RCR																				
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82		
1	106	102	98	95	102	98	95	92	90	88	86	84	82	80	77	76	74	71		
2	97	90	84	79	93	87	81	77	80	76	72	75	71	68	69	67	64	61		
3	90	80	73	67	86	77	71	66	72	67	62	67	63	59	62	59	56	53		
4	82	72	64	58	79	69	62	57	65	59	54	60	55	51	56	52	49	46		
5	76	64	56	50	73	62	55	49	58	52	47	55	49	45	51	47	43	41		
6	70	58	50	44	67	56	49	43	53	46	42	50	44	40	47	42	38	36		
7	65	53	45	39	63	51	44	39	48	42	37	45	40	36	43	38	34	32		
8	61	48	41	35	58	47	40	35	44	38	33	42	36	32	39	35	31	29		
9	57	45	37	32	55	43	36	31	41	35	30	39	33	29	36	32	28	26		
10	53	41	34	29	51	40	33	28	38	32	27	36	30	26	34	29	26	24		

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

TEST NUMBER: P854909

CATALOG NUMBER: SQ2-PR1-025U-100D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.8	3.3
10°-20°	601.4	9.5
20°-30°	929.6	14.7
30°-40°	1118.1	17.7
40°-50°	1004.0	15.9
50°-60°	672.6	10.7
60°-70°	391.2	6.2
70°-80°	200.9	3.2
80°-90°	50.0	0.8
90°-100°	74.0	1.2
100°-110°	230.0	3.6
110°-120°	225.0	3.6
120°-130°	183.7	2.9
130°-140°	150.3	2.4
140°-150°	117.3	1.9
150°-160°	84.6	1.3
160°-170°	51.8	0.8
170°-180°	17.4	0.3
0°-30°	1738.8	27.6
0°-40°	2856.9	45.3
0°-60°	4533.5	71.8
0°-90°	5175.6	82.0
90°-120°	529.0	8.4
90°-150°	980.3	15.5
90°-180°	1134.0	18.0
0°-180°	6309.7	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	1	3	3	3	2
95°	10	30	136	50	33	12
105°	40	57	226	432	413	43
115°	72	85	184	379	444	71
125°	100	111	182	298	350	89
135°	120	133	180	257	289	93
145°	140	151	180	222	242	88
155°	160	166	182	200	206	74
165°	176	177	183	188	190	49
175°	183	183	183	184	183	17
180°	183	183	183	183	183	



TEST NUMBER: P854909

CATALOG NUMBER: SQ2-PR1-025U-100D-830-UNV-STD-W-4

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	14.2	5.9	5.9	5.9
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.6	42.9	14.0	11.4
95°	10.1	29.8	135.7	50.1	32.6
97.5°	18.4	38.8	224.7	139.9	88.1
100°	24.6	43.3	253.4	237.0	158.1
102.5°	31.0	48.7	248.0	338.4	265.7
105°	40.4	56.8	226.5	432.2	412.6
107.5°	49.7	65.1	205.8	439.5	461.2
110°	56.1	71.3	195.0	429.2	471.9



TEST NUMBER: P854909

CATALOG NUMBER: SQ2-PR1-025U-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.3	76.8	189.7	410.6	464.8
115°	71.8	84.9	183.8	379.2	443.9
117.5°	81.0	92.9	181.4	349.3	415.4
120°	86.3	98.4	180.5	332.2	395.7
122.5°	91.7	103.8	181.4	317.7	375.9
125°	99.7	110.7	181.6	298.3	349.7
127.5°	106.3	117.5	181.6	283.7	327.5
130°	109.9	121.9	181.6	275.5	315.0
132.5°	114.3	126.4	180.7	268.3	305.2
135°	120.0	133.1	180.5	257.4	289.2
137.5°	126.4	138.5	180.5	246.6	275.5
140°	130.0	142.1	180.5	239.4	265.7
142.5°	134.5	145.7	180.5	232.1	255.8
145°	140.1	151.1	180.5	222.4	242.2
147.5°	146.9	156.3	181.6	213.4	229.0
150°	151.3	159.0	181.6	208.8	220.8
152.5°	154.9	161.7	181.6	204.3	214.6
155°	160.3	165.8	181.6	199.7	206.2
157.5°	165.6	169.8	181.6	195.6	199.8
160°	169.3	172.5	181.6	192.9	196.2
162.5°	172.0	174.3	181.6	191.1	193.5
165°	176.0	177.1	182.7	188.4	190.5
167.5°	178.4	178.6	181.6	186.8	187.9
170°	179.3	180.5	181.6	185.0	186.1
172.5°	181.1	181.4	182.5	184.1	184.3
175°	182.7	182.7	182.7	183.8	182.7
177.5°	182.7	182.7	182.7	182.7	182.7
180°	182.7	182.7	182.7	182.7	182.7



TEST NUMBER: P854909

CATALOG NUMBER: SQ2-PR1-025U-100D-830-UNV-STD-W-4

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	21.72	22.88	22.35	23.52	24.25	18.44	19.61	19.07	20.25	20.97
	3H	22.97	24.02	23.62	24.66	25.43	19.53	20.57	20.18	21.22	21.99
	4H	23.44	24.42	24.11	25.08	25.86	19.95	20.92	20.61	21.58	22.36
	6H	23.77	24.67	24.45	25.34	26.14	20.29	21.19	20.97	21.86	22.66
	8H	23.86	24.72	24.55	25.41	26.21	20.39	21.24	21.08	21.93	22.73
	12H	23.90	24.72	24.60	25.40	26.23	20.40	21.22	21.10	21.90	22.73
4H	2H	21.83	22.81	22.50	23.47	24.25	19.05	20.03	19.72	20.69	21.47
	3H	23.33	24.14	24.01	24.84	25.64	20.34	21.15	21.02	21.85	22.65
	4H	23.94	24.67	24.64	25.37	26.20	20.86	21.59	21.56	22.29	23.12
	6H	24.41	25.04	25.13	25.77	26.61	21.31	21.94	22.03	22.67	23.51
	8H	24.54	25.13	25.27	25.86	26.71	21.44	22.03	22.16	22.75	23.60
	12H	24.61	25.14	25.35	25.89	26.74	21.47	22.00	22.22	22.75	23.61
8H	4H	23.99	24.58	24.71	25.30	26.15	21.19	21.78	21.91	22.50	23.35
	6H	24.54	25.03	25.30	25.80	26.65	21.73	22.22	22.48	22.99	23.84
	8H	24.74	25.18	25.51	25.95	26.82	21.92	22.35	22.68	23.12	23.99
	12H	24.86	25.24	25.62	26.00	26.93	21.99	22.38	22.76	23.14	24.07
12H	4H	23.96	24.49	24.70	25.24	26.09	21.22	21.74	21.96	22.49	23.35
	6H	24.53	24.97	25.30	25.74	26.60	21.79	22.23	22.56	23.00	23.87
	8H	24.76	25.14	25.52	25.90	26.83	22.01	22.40	22.78	23.16	24.09