

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: P855484

Luminaire Tested: SQ2-PW1-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855484
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

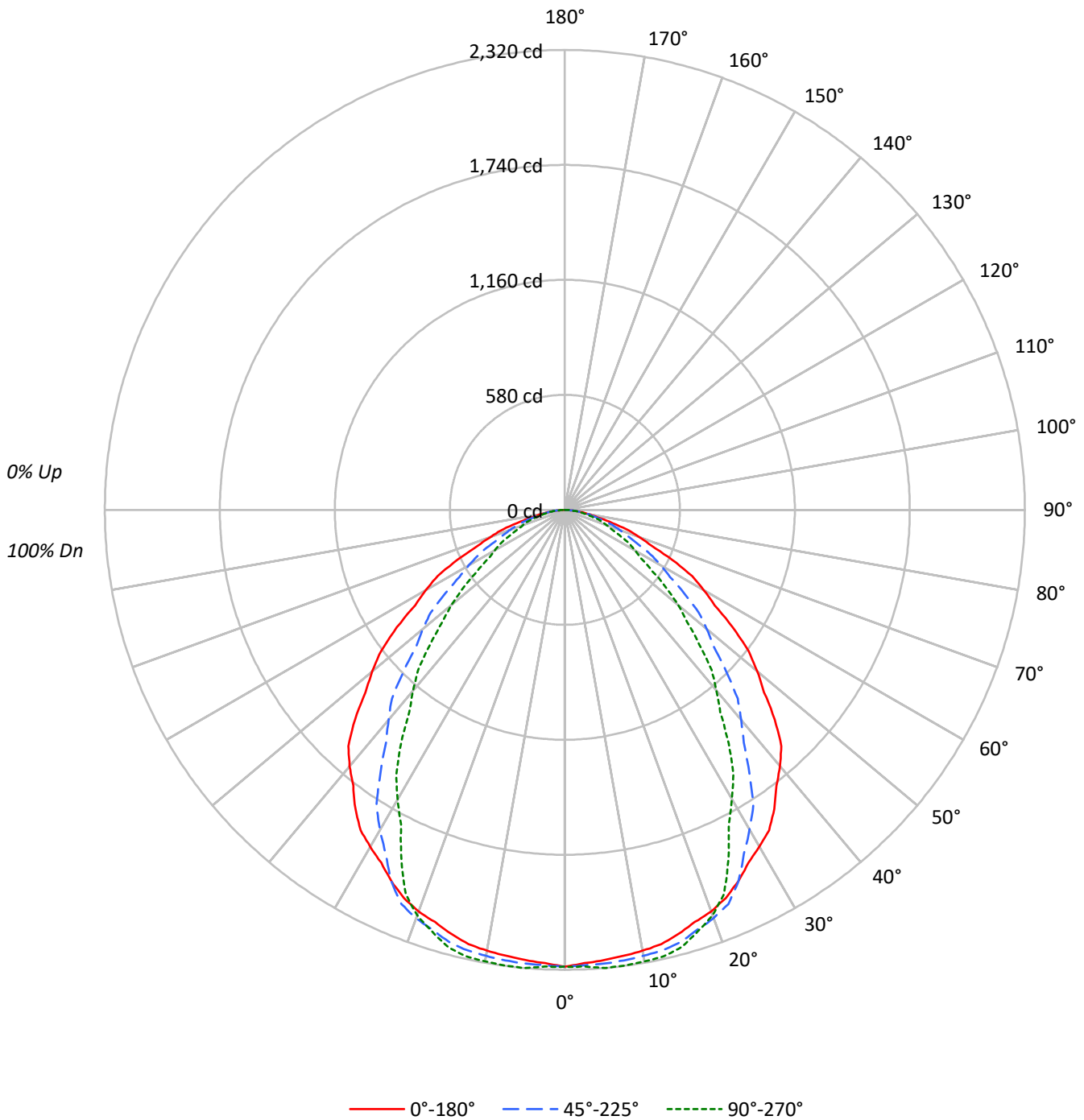
Lumens per Lamp: N/A
Luminaire Lumens: 5113.7 lumens
Efficiency: N/A
Efficacy: 136.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 37.6
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: P855484

CATALOG NUMBER: SQ2-PW1-100D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855484

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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74				74
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64				64
4	86	75	67	61	84	74	66	61	71	65	60	69	63	59	67	62	58	56				56
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51	49				49
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44				44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	46	41	39				39
8	64	52	44	38	63	51	43	38	50	43	38	48	42	37	47	42	37	35				35
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32				32
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29				29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37210	37210	37210
5°	36961	37246	37601
10°	37030	37461	37930
15°	37020	37717	38158
20°	37036	37675	37412
25°	36836	36873	34762
30°	36584	34742	31428
35°	36299	31970	28381
40°	35576	29145	25073
45°	34182	26213	21902
50°	31810	23431	18746
55°	29101	20701	15198
60°	26085	18006	13110
65°	22812	15511	11656
70°	18652	13785	10565
75°	14516	11909	9719
80°	10814	10209	8573
85°	7317	7744	4891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 34182 cd/sqm



TEST NUMBER: P855484

CATALOG NUMBER: SQ2-PW1-100D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.5	4.3
10°-20°	635.9	12.4
20°-30°	935.7	18.3
30°-40°	1023.1	20.0
40°-50°	917.8	17.9
50°-60°	684.6	13.4
60°-70°	432.7	8.5
70°-80°	214.3	4.2
80°-90°	50.2	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1791.1	35.0
0°-40°	2814.1	55.0
0°-60°	4416.5	86.4
0°-90°	5113.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5113.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2280	2317	2298	2301	2320	217
15°	2215	2258	2256	2272	2283	625
25°	2068	2113	2070	1984	1951	952
35°	1842	1822	1622	1481	1440	1149
45°	1497	1377	1148	1004	959	1148
55°	1034	935	735	576	540	923
65°	597	548	406	327	305	592
75°	233	250	191	160	156	256
85°	40	50	42	28	26	52
90°	0	0	0	0	0	



TEST NUMBER: P855484

CATALOG NUMBER: SQ2-PW1-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2304.6	2304.6	2304.6	2304.6	2304.6
2.5°	2288.9	2318.1	2299.4	2301.4	2306.4
5°	2280.5	2317.1	2298.1	2300.8	2320.0
7.5°	2269.1	2306.0	2292.0	2299.9	2318.8
10°	2258.6	2297.3	2284.9	2296.3	2313.5
12.5°	2244.5	2284.9	2276.1	2289.2	2306.4
15°	2214.7	2257.7	2256.4	2272.0	2282.8
17.5°	2180.0	2222.9	2220.9	2225.0	2230.1
20°	2155.5	2198.4	2192.7	2177.4	2177.4
22.5°	2120.3	2166.7	2152.3	2110.3	2096.6
25°	2067.7	2112.7	2069.8	1983.5	1951.3
27.5°	2006.2	2042.7	1956.5	1834.0	1789.3
30°	1962.3	1990.1	1863.5	1728.6	1685.7
32.5°	1916.6	1927.3	1768.7	1628.5	1582.1
35°	1841.6	1822.2	1622.0	1480.7	1439.9
37.5°	1752.8	1695.3	1481.1	1333.1	1287.9
40°	1687.9	1606.4	1382.8	1234.8	1189.6
42.5°	1615.9	1513.7	1289.8	1141.6	1094.9
45°	1497.0	1376.8	1148.0	1004.2	959.2
47.5°	1363.1	1243.7	1015.3	876.2	837.5
50°	1266.4	1150.6	932.8	793.5	746.3
52.5°	1168.1	1064.3	852.0	708.9	644.5
55°	1033.8	935.1	735.4	576.5	539.9
57.5°	895.5	810.2	629.5	485.3	455.3
60°	807.8	732.6	557.6	436.1	406.0
62.5°	723.5	656.9	487.3	390.5	365.6
65°	597.1	547.6	406.0	326.6	305.1
67.5°	474.1	446.7	337.6	267.9	253.7
70°	395.1	386.5	292.0	234.6	223.8
72.5°	326.6	330.0	248.1	203.1	195.8
75°	232.7	249.9	190.9	160.1	155.8
77.5°	158.4	184.2	141.3	118.5	115.0
80°	116.3	142.1	109.8	92.2	92.2
82.5°	81.3	101.8	78.1	69.4	69.4
85°	39.5	50.2	41.8	28.5	26.4
87.5°	10.5	15.7	7.0	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P855484

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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	23.54	25.04	23.90	25.35	25.67	20.02	21.53	20.39	21.84	22.15
	3H	24.90	26.25	25.28	26.58	26.94	21.27	22.62	21.65	22.95	23.31
	4H	25.31	26.57	25.71	26.92	27.30	21.75	23.01	22.15	23.36	23.74
	6H	25.54	26.70	25.95	27.07	27.46	22.10	23.26	22.51	23.63	24.02
	8H	25.59	26.70	26.02	27.09	27.49	22.19	23.30	22.62	23.69	24.09
	12H	25.61	26.67	26.04	27.05	27.48	22.22	23.28	22.65	23.66	24.09
4H	2H	23.71	24.98	24.11	25.32	25.70	20.78	22.04	21.18	22.39	22.77
	3H	25.31	26.36	25.73	26.76	27.16	22.22	23.27	22.63	23.67	24.07
	4H	25.85	26.78	26.28	27.20	27.64	22.79	23.73	23.22	24.15	24.59
	6H	26.21	27.03	26.67	27.47	27.93	23.23	24.04	23.69	24.49	24.95
	8H	26.30	27.06	26.76	27.51	27.97	23.35	24.11	23.81	24.55	25.02
	12H	26.34	27.02	26.83	27.50	27.97	23.40	24.08	23.88	24.55	25.03
8H	4H	25.93	26.69	26.39	27.13	27.60	23.16	23.92	23.63	24.37	24.84
	6H	26.39	27.01	26.88	27.51	27.98	23.69	24.32	24.19	24.81	25.29
	8H	26.53	27.10	27.05	27.61	28.10	23.85	24.42	24.37	24.93	25.42
	12H	26.63	27.12	27.14	27.62	28.18	23.94	24.44	24.45	24.93	25.50
12H	4H	25.92	26.60	26.40	27.07	27.55	23.21	23.89	23.69	24.36	24.84
	6H	26.38	26.94	26.89	27.45	27.94	23.76	24.32	24.27	24.83	25.32
	8H	26.57	27.07	27.08	27.56	28.12	23.97	24.47	24.48	24.96	25.53