

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: P855274

Luminaire Tested: SQ2-PW1-125U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855274
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-125U-125D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

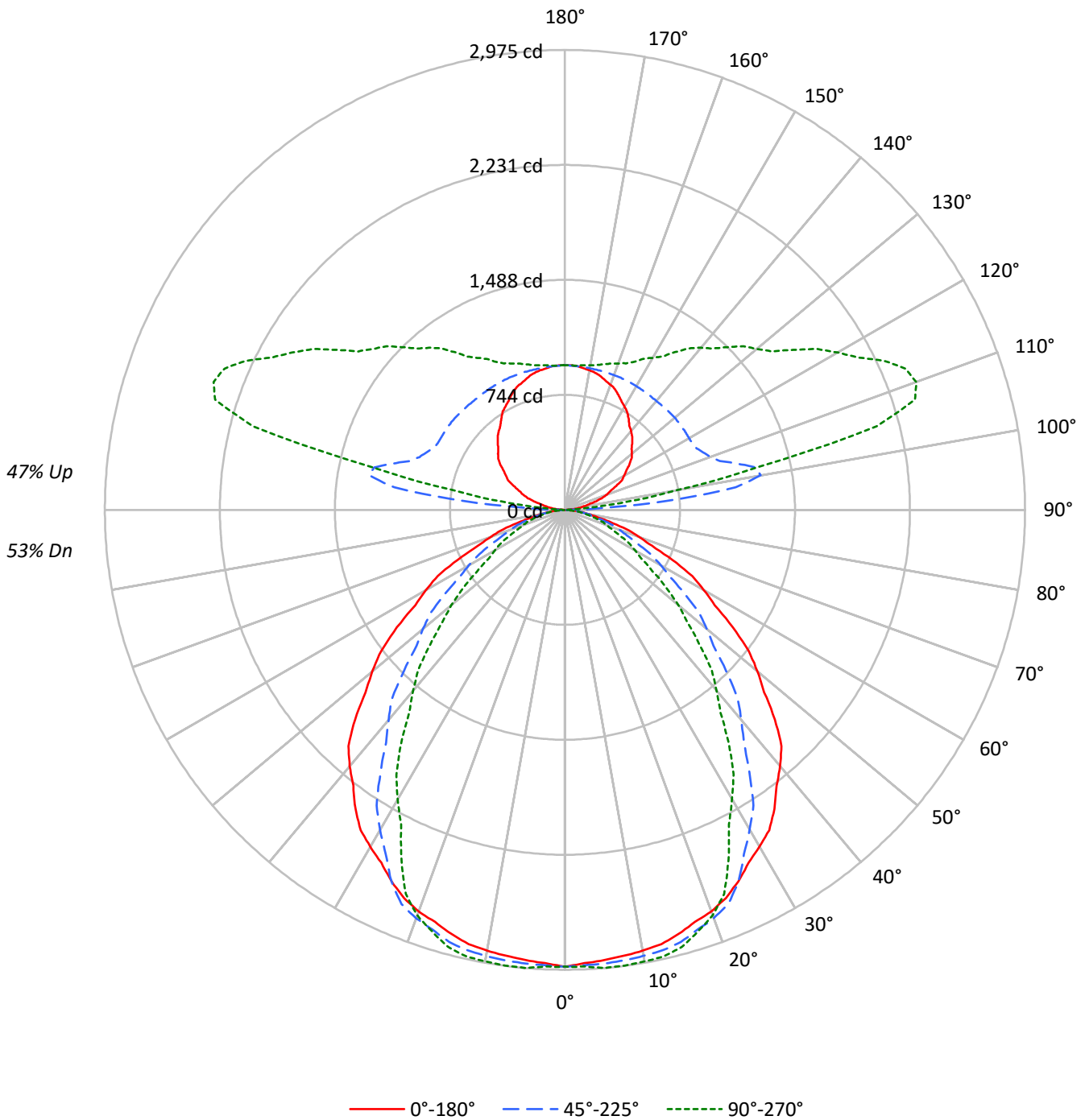
Lumens per Lamp: N/A
Luminaire Lumens: 12330.3 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 93.1
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: P855274

CATALOG NUMBER: SQ2-PW1-125U-125D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855274

CATALOG NUMBER: SQ2-PW1-125U-125D-840-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	0	
RCR																						
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53				53
1	99	95	91	88	92	88	85	82	76	73	71	64	62	61	53	52	51	46				46
2	91	84	78	73	84	78	73	68	67	63	60	57	54	52	48	46	44	40				40
3	83	74	67	61	77	69	63	58	60	55	51	51	47	44	43	40	38	34				34
4	76	66	58	53	71	62	55	50	53	48	44	46	42	39	38	36	33	30				30
5	70	59	51	45	65	55	48	43	48	43	38	41	37	34	35	32	29	26				26
6	65	53	45	40	60	50	43	38	43	38	34	37	33	30	32	29	26	23				23
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	23	21				21
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	24	21	19				19
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17				17
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	18	16				16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	47714	47714	47714
5°	47396	47760	48216
10°	47481	48035	48636
15°	47468	48363	48928
20°	47489	48309	47972
25°	47233	47283	44575
30°	46911	44549	40300
35°	46542	40996	36391
40°	45619	37374	32153
45°	43829	33611	28085
50°	40792	30047	24036
55°	37315	26539	19491
60°	33444	23085	16814
65°	29249	19893	14946
70°	23915	17670	13548
75°	18609	15278	12470
80°	13873	13092	10990
85°	9392	9911	6262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 43829 cd/sqm



TEST NUMBER: P855274

CATALOG NUMBER: SQ2-PW1-125U-125D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.4	2.3
10°-20°	815.3	6.6
20°-30°	1199.9	9.7
30°-40°	1311.9	10.6
40°-50°	1176.9	9.5
50°-60°	877.9	7.1
60°-70°	554.8	4.5
70°-80°	274.8	2.2
80°-90°	65.4	0.5
90°-100°	357.9	2.9
100°-110°	1165.1	9.4
110°-120°	1152.5	9.3
120°-130°	941.8	7.6
130°-140°	769.8	6.2
140°-150°	599.6	4.9
150°-160°	432.2	3.5
160°-170°	264.1	2.1
170°-180°	89.1	0.7
0°-30°	2296.6	18.6
0°-40°	3608.5	29.3
0°-60°	5663.2	45.9
0°-90°	6558.2	53.2
90°-120°	2675.5	21.7
90°-150°	4986.7	40.4
90°-180°	5772.0	46.8
0°-180°	12330.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2955	2955	2955	2955	2955	
5°	2924	2971	2947	2950	2975	278
15°	2840	2895	2893	2913	2927	802
25°	2651	2709	2654	2543	2502	1221
35°	2361	2337	2080	1899	1846	1473
45°	1920	1765	1472	1288	1230	1472
55°	1326	1199	943	739	692	1184
65°	766	702	521	419	391	759
75°	298	320	245	205	200	329
85°	51	64	54	36	34	64
90°	0	3	8	7	7	4
95°	48	147	656	234	144	56
105°	198	286	1154	2204	2088	211
115°	366	437	940	1938	2280	362
125°	509	567	928	1530	1803	453
135°	614	679	923	1320	1489	475
145°	718	771	921	1137	1245	450
155°	819	846	926	1018	1056	377
165°	894	902	929	963	975	252
175°	932	932	932	939	937	88
180°	936	936	936	936	936	

TEST NUMBER: P855274

CATALOG NUMBER: SQ2-PW1-125U-125D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2955.2	2955.2	2955.2	2955.2	2955.2
2.5°	2934.9	2972.4	2948.5	2950.9	2957.4
5°	2924.3	2971.1	2946.8	2950.2	2974.9
7.5°	2909.7	2957.0	2938.9	2949.0	2973.3
10°	2896.1	2945.7	2929.9	2944.5	2966.5
12.5°	2878.1	2929.8	2918.6	2935.5	2957.4
15°	2839.8	2894.9	2893.3	2913.4	2927.1
17.5°	2795.3	2850.5	2847.8	2852.9	2859.5
20°	2763.9	2818.9	2811.6	2792.0	2792.0
22.5°	2718.9	2778.3	2759.9	2706.1	2688.5
25°	2651.3	2709.1	2654.1	2543.4	2502.1
27.5°	2572.5	2619.2	2508.9	2351.7	2294.4
30°	2516.2	2552.0	2389.5	2216.6	2161.6
32.5°	2457.6	2471.3	2268.0	2088.2	2028.7
35°	2361.3	2336.6	2079.9	1898.6	1846.3
37.5°	2247.7	2173.9	1899.3	1709.3	1651.6
40°	2164.4	2059.8	1773.2	1583.3	1525.5
42.5°	2072.1	1941.1	1653.8	1463.9	1403.8
45°	1919.5	1765.3	1472.0	1287.8	1230.0
47.5°	1747.9	1594.9	1302.0	1123.6	1074.0
50°	1624.0	1475.4	1196.2	1017.5	956.9
52.5°	1497.9	1364.7	1092.6	908.9	826.4
55°	1325.6	1199.1	942.8	739.1	692.4
57.5°	1148.3	1038.8	807.2	622.2	583.7
60°	1035.7	939.4	714.9	559.2	520.7
62.5°	927.7	842.4	624.8	500.8	468.8
65°	765.6	702.3	520.7	418.7	391.2
67.5°	608.0	572.7	432.8	343.6	325.4
70°	506.6	495.6	374.3	300.8	287.0
72.5°	418.8	423.2	318.0	260.5	251.0
75°	298.3	320.4	244.9	205.3	199.9
77.5°	203.2	236.2	181.2	151.9	147.4
80°	149.2	182.2	140.8	118.2	118.2
82.5°	104.2	130.5	100.2	88.9	88.9
85°	50.7	64.4	53.5	36.5	33.8
87.5°	13.5	20.7	10.6	8.2	8.2
90°	0.0	3.4	8.0	6.9	6.9
92.5°	16.5	59.6	190.3	62.7	48.4
95°	48.4	147.3	655.9	233.9	143.8
97.5°	90.9	191.7	1113.2	678.0	413.8
100°	118.5	217.6	1285.3	1146.2	743.4
102.5°	149.9	245.2	1264.2	1695.7	1289.3
105°	197.9	285.6	1154.2	2204.5	2087.5
107.5°	250.0	332.5	1049.7	2248.5	2372.5
110°	287.7	363.0	1000.0	2193.8	2417.7



TEST NUMBER: P855274

CATALOG NUMBER: SQ2-PW1-125U-125D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	319.0	393.4	968.7	2094.9	2383.6
115°	365.9	436.8	940.1	1937.6	2279.6
117.5°	414.3	478.2	929.1	1793.4	2134.0
120°	441.9	504.9	926.4	1704.9	2034.4
122.5°	468.6	530.7	927.3	1627.9	1935.0
125°	508.6	567.1	927.5	1529.8	1803.2
127.5°	543.0	602.7	927.3	1456.3	1684.2
130°	565.0	625.8	926.4	1414.2	1617.9
132.5°	584.3	647.8	925.4	1375.3	1566.4
135°	614.5	678.6	922.9	1320.3	1489.0
137.5°	644.0	708.6	920.3	1264.3	1414.2
140°	665.1	727.0	919.4	1226.5	1368.2
142.5°	685.4	744.6	919.4	1190.2	1316.7
145°	718.0	770.9	920.6	1137.1	1245.1
147.5°	749.8	795.7	922.2	1091.9	1175.3
150°	771.0	811.5	924.0	1064.8	1135.8
152.5°	792.1	825.5	925.0	1044.3	1100.8
155°	819.3	846.3	926.4	1018.1	1056.3
157.5°	845.1	864.5	927.8	998.7	1025.6
160°	860.8	876.5	928.6	986.6	1008.1
162.5°	874.5	886.8	928.6	976.4	992.3
165°	894.1	902.0	928.6	963.4	974.6
167.5°	908.0	912.9	928.8	953.6	959.5
170°	917.2	919.4	929.8	947.1	949.3
172.5°	923.6	925.0	931.6	943.4	942.9
175°	932.1	932.1	932.1	939.0	936.7
177.5°	935.6	934.7	933.7	938.3	934.7
180°	935.6	935.6	935.6	935.6	935.6



TEST NUMBER: P855274

CATALOG NUMBER: SQ2-PW1-125U-125D-840-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	20.78	21.63	21.71	22.58	23.80	17.26	18.11	18.20	19.06	20.29
	3H	22.10	22.86	23.05	23.82	25.07	18.47	19.23	19.42	20.18	21.44
	4H	22.47	23.19	23.44	24.15	25.41	18.91	19.63	19.88	20.59	21.85
	6H	22.67	23.33	23.65	24.30	25.58	19.23	19.89	20.21	20.86	22.13
	8H	22.71	23.34	23.69	24.32	25.59	19.31	19.93	20.29	20.92	22.19
	12H	22.70	23.30	23.69	24.28	25.57	19.32	19.91	20.30	20.89	22.19
4H	2H	20.88	21.60	21.85	22.56	23.82	17.95	18.66	18.91	19.62	20.89
	3H	22.42	23.02	23.40	24.01	25.29	19.33	19.93	20.31	20.92	22.19
	4H	22.93	23.47	23.92	24.46	25.76	19.88	20.42	20.86	21.41	22.71
	6H	23.26	23.73	24.26	24.74	26.04	20.28	20.75	21.28	21.76	23.05
	8H	23.34	23.78	24.34	24.78	26.09	20.39	20.82	21.39	21.82	23.14
	12H	23.36	23.75	24.37	24.77	26.08	20.41	20.80	21.43	21.82	23.14
8H	4H	22.97	23.40	23.97	24.41	25.72	20.20	20.64	21.20	21.64	22.95
	6H	23.41	23.76	24.43	24.81	26.12	20.71	21.07	21.73	22.11	23.42
	8H	23.55	23.87	24.58	24.90	26.23	20.87	21.19	21.91	22.22	23.55
	12H	23.62	23.89	24.65	24.92	26.29	20.93	21.21	21.97	22.24	23.61
12H	4H	22.93	23.32	23.95	24.34	25.66	20.22	20.61	21.24	21.63	22.95
	6H	23.40	23.71	24.43	24.74	26.07	20.77	21.09	21.81	22.12	23.45
	8H	23.56	23.84	24.59	24.86	26.23	20.96	21.24	22.00	22.26	23.64