

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: P855286

Luminaire Tested: SQ2-PW1-075U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855286
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-075U-125D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

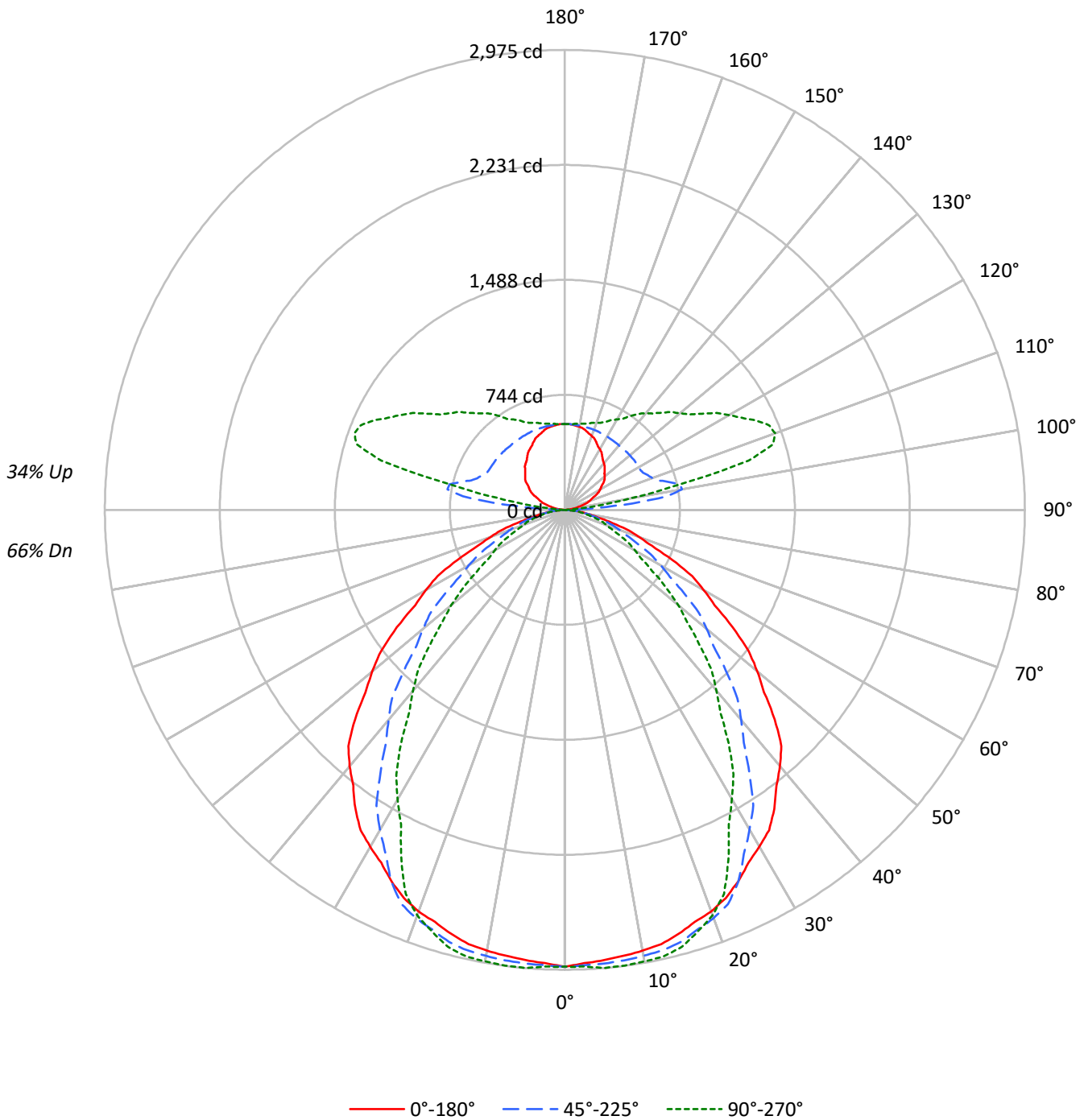
Lumens per Lamp: N/A
Luminaire Lumens: 9998.9 lumens
Efficiency: N/A
Efficacy: 137.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 72.5
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

TEST NUMBER: P855286

CATALOG NUMBER: SQ2-PW1-075U-125D-840-UNV-STD-W-4

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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66
1	102	98	94	91	96	92	89	86	82	80	77	72	71	69	63	62	61	57
2	94	86	80	76	88	82	76	72	73	69	65	64	61	59	57	55	53	49
3	86	77	70	64	81	73	66	61	65	60	56	58	54	51	51	48	46	42
4	79	68	61	55	74	65	58	53	58	53	48	52	48	44	46	43	40	37
5	73	61	53	47	68	58	51	46	52	47	42	47	42	39	42	38	35	32
6	67	55	47	42	63	53	45	40	48	42	37	43	38	34	38	34	31	29
7	62	50	42	37	59	48	41	36	43	37	33	39	34	31	35	31	28	26
8	58	46	38	33	55	44	37	32	40	34	30	36	31	28	32	28	25	23
9	54	42	35	30	51	40	33	29	37	31	27	33	28	25	30	26	23	21
10	51	39	32	27	48	37	30	26	34	28	24	31	26	23	28	24	21	19

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: P855286

CATALOG NUMBER: SQ2-PW1-075U-125D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.4	2.8
10°-20°	815.3	8.2
20°-30°	1199.9	12.0
30°-40°	1311.9	13.1
40°-50°	1176.9	11.8
50°-60°	877.9	8.8
60°-70°	554.8	5.5
70°-80°	274.8	2.7
80°-90°	64.9	0.6
90°-100°	210.2	2.1
100°-110°	696.8	7.0
110°-120°	691.6	6.9
120°-130°	563.3	5.6
130°-140°	457.8	4.6
140°-150°	355.5	3.6
150°-160°	256.2	2.6
160°-170°	156.9	1.6
170°-180°	53.0	0.5
0°-30°	2296.6	23.0
0°-40°	3608.5	36.1
0°-60°	5663.2	56.6
0°-90°	6557.7	65.6
90°-120°	1598.6	16.0
90°-150°	2975.2	29.8
90°-180°	3441.0	34.4
0°-180°	9998.9	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	1	4	4	4	3
95°	30	88	381	136	91	34
105°	122	174	697	1316	1230	129
115°	218	260	562	1169	1367	215
125°	304	338	551	919	1083	270
135°	364	401	547	788	890	281
145°	422	454	545	678	742	265
155°	482	499	549	606	628	222
165°	529	535	551	573	579	149
175°	553	553	555	558	557	53
180°	556	556	556	556	556	



TEST NUMBER: P855286

CATALOG NUMBER: SQ2-PW1-075U-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	20.4	9.7	7.7	7.7
90°	0.0	1.2	3.5	4.5	4.5
92.5°	9.2	35.5	104.8	33.9	28.6
95°	30.0	88.5	380.9	135.9	90.9
97.5°	55.0	116.2	664.9	387.7	245.1
100°	72.5	131.0	769.9	661.2	438.4
102.5°	91.8	148.6	763.3	1010.5	763.3
105°	122.0	173.8	697.4	1315.6	1230.1
107.5°	152.8	198.9	634.1	1346.6	1411.7
110°	170.3	216.4	601.8	1316.0	1447.5



TEST NUMBER: P855286

CATALOG NUMBER: SQ2-PW1-075U-125D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	188.7	233.9	582.5	1261.5	1429.2
115°	217.5	260.2	561.6	1169.0	1367.0
117.5°	246.0	284.0	553.9	1080.7	1288.4
120°	263.5	300.7	551.2	1025.3	1226.7
122.5°	279.1	315.4	551.2	979.8	1165.9
125°	303.8	337.5	551.2	918.6	1082.8
127.5°	324.1	357.1	549.8	872.2	1012.6
130°	336.0	370.9	548.9	845.1	971.2
132.5°	347.1	382.8	548.0	822.8	936.2
135°	363.6	400.8	546.6	788.3	889.6
137.5°	381.6	417.3	545.2	754.8	844.2
140°	393.6	428.4	544.2	732.6	814.7
142.5°	404.6	438.5	545.2	710.3	783.4
145°	422.3	453.8	545.4	678.0	742.2
147.5°	441.5	467.8	545.6	650.8	698.5
150°	453.3	477.0	546.6	634.9	675.5
152.5°	464.4	487.1	547.5	621.9	654.3
155°	482.1	499.0	548.9	605.8	628.3
157.5°	499.4	512.4	550.3	594.4	610.3
160°	508.6	519.9	551.2	586.0	598.3
162.5°	517.8	526.4	551.2	580.4	590.0
165°	529.3	534.9	551.2	573.1	578.9
167.5°	539.9	542.8	552.4	566.7	569.6
170°	545.4	546.6	552.4	563.8	565.0
172.5°	549.1	550.3	553.2	561.1	561.4
175°	553.4	553.4	554.6	558.1	556.9
177.5°	555.8	555.8	554.8	556.7	554.8
180°	555.8	555.8	555.8	555.8	555.8



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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	21.83	22.80	22.65	23.63	24.67	18.32	19.28	19.14	20.12	21.15
	3H	23.16	24.02	23.99	24.87	25.93	19.53	20.39	20.36	21.24	22.30
	4H	23.54	24.35	24.39	25.21	26.28	19.98	20.80	20.83	21.65	22.72
	6H	23.75	24.50	24.61	25.36	26.44	20.30	21.05	21.17	21.91	23.00
	8H	23.78	24.50	24.65	25.37	26.46	20.38	21.09	21.25	21.97	23.06
	12H	23.78	24.46	24.66	25.33	26.44	20.40	21.08	21.27	21.95	23.06
4H	2H	21.95	22.76	22.80	23.61	24.69	19.01	19.83	19.87	20.68	21.75
	3H	23.50	24.18	24.37	25.06	26.15	20.41	21.08	21.28	21.97	23.06
	4H	24.01	24.63	24.89	25.51	26.62	20.96	21.57	21.84	22.46	23.57
	6H	24.35	24.88	25.24	25.79	26.90	21.37	21.90	22.26	22.80	23.92
	8H	24.43	24.92	25.33	25.83	26.96	21.48	21.97	22.37	22.87	24.00
	12H	24.45	24.90	25.37	25.82	26.95	21.50	21.95	22.42	22.87	24.00
8H	4H	24.06	24.55	24.96	25.45	26.58	21.29	21.79	22.19	22.69	23.82
	6H	24.50	24.91	25.42	25.85	26.98	21.80	22.21	22.73	23.15	24.28
	8H	24.65	25.01	25.58	25.94	27.09	21.97	22.33	22.90	23.26	24.41
	12H	24.72	25.03	25.65	25.96	27.16	22.03	22.35	22.97	23.28	24.48
12H	4H	24.02	24.47	24.94	25.39	26.52	21.32	21.76	22.23	22.68	23.81
	6H	24.49	24.85	25.42	25.79	26.94	21.87	22.23	22.80	23.17	24.31
	8H	24.66	24.98	25.59	25.90	27.10	22.06	22.38	22.99	23.30	24.50