

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: P855317

Luminaire Tested: SQ2-PR1-075U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855317
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-075U-050D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

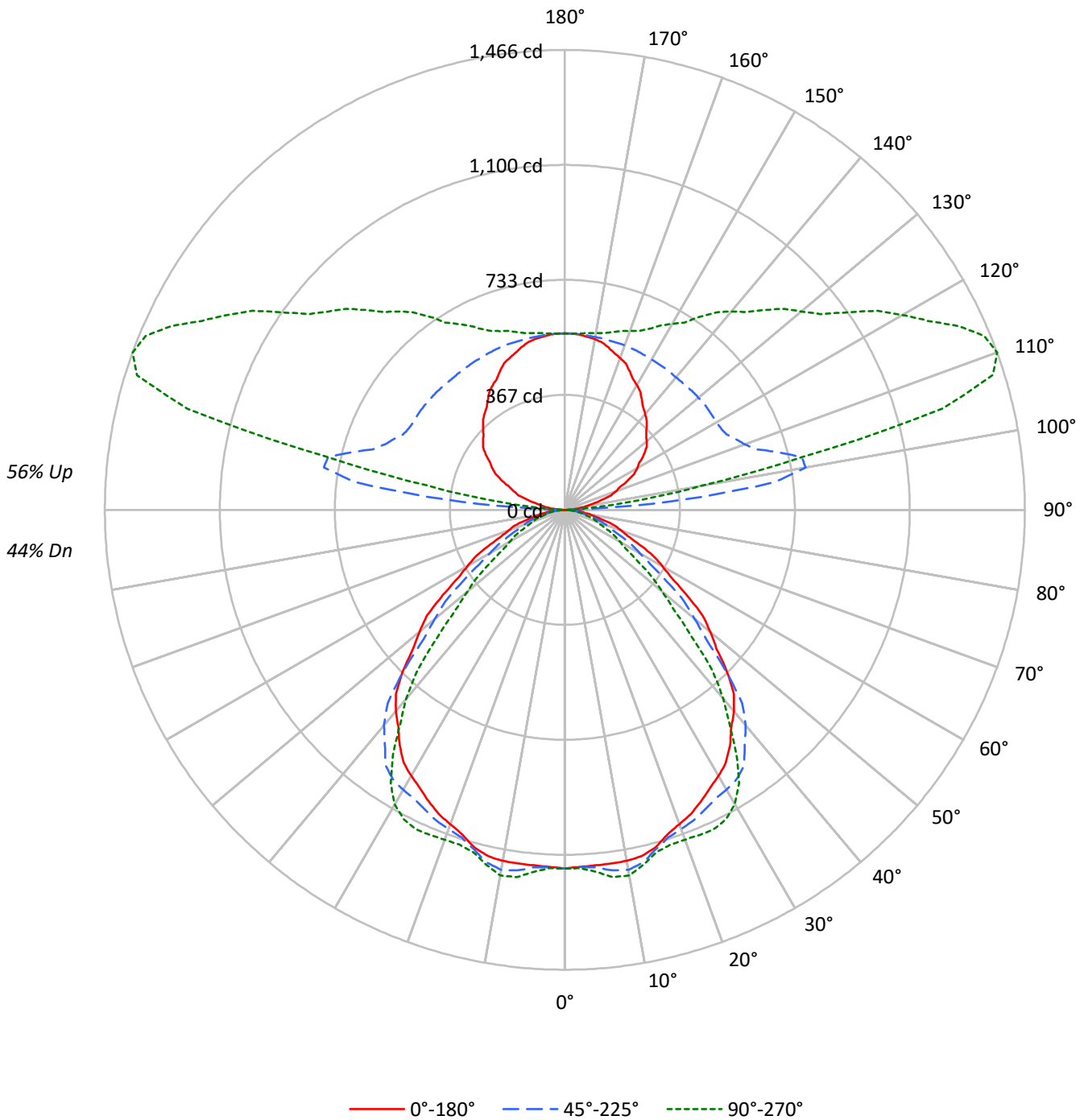
Lumens per Lamp: N/A
Luminaire Lumens: 6235.5 lumens
Efficiency: N/A
Efficacy: 151.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 41.1
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

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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				44
1	97	93	89	86	89	85	82	79	71	69	67	58	56	55	46	45	44				38	
2	89	82	76	71	81	75	70	66	63	59	56	51	49	47	41	39	38				33	
3	81	72	65	60	74	67	61	56	56	51	48	46	43	40	37	35	33				28	
4	75	64	57	51	68	59	53	48	50	45	41	41	38	35	33	31	29				25	
5	69	57	50	44	63	53	46	41	45	40	36	37	33	30	30	27	25				22	
6	63	52	44	38	58	48	41	36	40	35	31	34	30	27	27	25	22				19	
7	59	47	39	34	54	43	36	32	37	31	28	31	27	24	25	22	20				17	
8	54	42	35	30	50	39	33	28	34	28	25	28	24	21	23	20	18				16	
9	51	39	31	27	46	36	29	25	31	26	22	26	22	19	21	18	16				14	
10	47	35	28	24	43	33	27	22	28	23	20	24	20	17	20	17	15				13	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18460	18460	18460
5°	18434	18548	18775
10°	18630	19107	19394
15°	18623	18721	18877
20°	18321	18603	19223
25°	18271	18789	20013
30°	18250	19207	20206
35°	18078	19618	18814
40°	17660	18889	16556
45°	16712	16577	13093
50°	15192	13554	10158
55°	13351	11153	7907
60°	11554	8919	6510
65°	9971	7393	5700
70°	8969	6548	5061
75°	8216	5671	4654
80°	7150	4547	4547
85°	5187	4094	2167

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 18066 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.4	1.8
10°-20°	319.6	5.1
20°-30°	494.0	7.9
30°-40°	594.2	9.5
40°-50°	533.5	8.6
50°-60°	357.4	5.7
60°-70°	207.9	3.3
70°-80°	106.8	1.7
80°-90°	26.9	0.4
90°-100°	212.8	3.4
100°-110°	705.6	11.3
110°-120°	700.3	11.2
120°-130°	570.4	9.1
130°-140°	463.6	7.4
140°-150°	360.0	5.8
150°-160°	259.4	4.2
160°-170°	158.8	2.5
170°-180°	53.7	0.9
0°-30°	924.0	14.8
0°-40°	1518.3	24.3
0°-60°	2409.2	38.6
0°-90°	2750.8	44.1
90°-120°	1618.8	26.0
90°-150°	3012.8	48.3
90°-180°	3485.0	55.9
0°-180°	6235.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1137	1157	1144	1147	1158	109
15°	1114	1160	1120	1124	1129	313
25°	1026	1067	1055	1094	1123	473
35°	917	925	995	976	954	572
45°	732	791	726	612	573	560
55°	474	492	396	306	281	426
65°	261	267	194	157	149	264
75°	132	128	91	77	75	140
85°	28	22	22	15	12	35
90°	0	1	4	5	5	2
95°	30	90	386	138	92	35
105°	124	176	706	1332	1246	130
115°	220	264	569	1184	1384	218
125°	308	342	558	930	1096	273
135°	368	406	553	798	901	285
145°	428	460	552	687	752	268
155°	488	505	556	614	636	225
165°	536	542	558	580	586	151
175°	560	560	562	565	564	53
180°	563	563	563	563	563	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1143.3	1143.3	1143.3	1143.3	1143.3
2.5°	1138.6	1152.2	1139.5	1140.6	1143.3
5°	1137.4	1156.8	1144.4	1147.0	1158.4
7.5°	1137.2	1164.8	1158.9	1166.0	1181.0
10°	1136.3	1169.4	1165.4	1166.9	1182.9
12.5°	1130.7	1169.2	1151.4	1150.0	1158.6
15°	1114.1	1159.7	1120.0	1123.6	1129.3
17.5°	1085.0	1132.7	1094.8	1107.6	1118.8
20°	1066.3	1113.1	1082.7	1099.4	1118.8
22.5°	1049.6	1096.3	1071.5	1094.9	1121.6
25°	1025.6	1066.6	1054.7	1093.8	1123.4
27.5°	1000.4	1024.5	1038.6	1091.0	1111.8
30°	978.9	994.9	1030.2	1075.9	1083.8
32.5°	955.6	965.2	1019.0	1042.8	1032.5
35°	917.2	925.2	995.3	976.1	954.5
37.5°	871.5	887.9	941.9	886.8	861.9
40°	837.9	865.3	896.2	814.0	785.5
42.5°	796.9	840.7	835.6	730.8	696.0
45°	731.9	791.2	726.0	612.1	573.4
47.5°	655.2	716.0	609.5	507.8	471.5
50°	604.8	653.8	539.6	444.3	404.4
52.5°	553.6	588.9	479.9	384.7	348.5
55°	474.3	492.5	396.2	305.9	280.9
57.5°	401.6	413.3	323.7	247.1	228.7
60°	357.8	365.7	276.2	216.4	201.6
62.5°	317.7	323.9	238.0	190.4	179.2
65°	261.0	266.8	193.5	157.1	149.2
67.5°	216.1	219.0	159.2	130.6	123.1
70°	190.0	191.1	138.7	112.9	107.2
72.5°	166.7	165.0	119.1	98.0	94.2
75°	131.7	128.3	90.9	76.9	74.6
77.5°	98.4	94.7	63.9	59.2	59.2
80°	76.9	72.4	48.9	48.9	48.9
82.5°	57.3	50.9	37.8	37.8	36.8
85°	28.0	22.3	22.1	15.0	11.7
87.5°	7.5	7.7	3.5	3.7	3.7
90°	0.0	1.2	3.5	4.7	4.7
92.5°	9.3	36.0	106.1	34.4	28.9
95°	30.3	89.5	385.7	137.6	92.1
97.5°	55.7	117.7	673.3	392.6	248.2
100°	73.4	132.6	779.5	669.5	444.0
102.5°	93.0	150.5	773.0	1023.2	773.0
105°	123.5	176.0	706.1	1332.3	1245.7
107.5°	154.8	201.5	642.0	1363.6	1429.5
110°	172.5	219.2	609.4	1332.6	1465.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	191.1	236.9	589.8	1277.5	1447.2
115°	220.3	263.5	568.6	1183.8	1384.4
117.5°	249.2	287.6	560.9	1094.3	1304.7
120°	266.9	304.4	558.1	1038.3	1242.2
122.5°	282.7	319.4	558.1	992.2	1180.7
125°	307.7	341.8	558.1	930.1	1096.5
127.5°	328.2	361.6	556.7	883.3	1025.4
130°	340.3	375.6	555.8	855.9	983.5
132.5°	351.5	387.7	554.8	833.3	948.1
135°	368.3	405.8	553.4	798.2	900.7
137.5°	386.4	422.6	552.1	764.4	854.8
140°	398.6	433.9	551.1	741.8	825.0
142.5°	409.8	444.1	552.1	719.3	793.3
145°	427.7	459.5	552.3	686.7	751.6
147.5°	447.0	473.6	552.5	659.0	707.3
150°	459.2	483.1	553.4	643.0	684.0
152.5°	470.2	493.3	554.4	629.8	662.5
155°	488.2	505.3	555.8	613.5	636.2
157.5°	505.7	519.0	557.2	601.9	618.0
160°	515.0	526.4	558.1	593.4	605.9
162.5°	524.3	533.1	558.1	587.7	597.5
165°	536.0	541.7	558.1	580.4	586.1
167.5°	546.7	549.7	559.3	573.8	576.8
170°	552.3	553.4	559.3	571.0	572.1
172.5°	556.0	557.2	560.2	568.1	568.4
175°	560.4	560.4	561.6	565.1	563.9
177.5°	562.8	562.8	561.8	563.7	561.8
180°	562.8	562.8	562.8	562.8	562.8



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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	16.33	17.11	17.35	18.13	19.48	13.06	13.83	14.07	14.85	16.21
	3H	17.56	18.25	18.58	19.28	20.66	14.12	14.81	15.14	15.84	17.21
	4H	18.01	18.66	19.05	19.69	21.08	14.51	15.17	15.55	16.20	17.58
	6H	18.32	18.92	19.37	19.96	21.35	14.84	15.44	15.89	16.48	17.87
	8H	18.40	18.97	19.45	20.02	21.42	14.92	15.50	15.98	16.55	17.94
	12H	18.43	18.97	19.48	20.02	21.43	14.93	15.47	15.99	16.52	17.93
4H	2H	16.40	17.06	17.44	18.09	19.47	13.62	14.27	14.66	15.30	16.69
	3H	17.87	18.41	18.92	19.47	20.86	14.87	15.42	15.93	16.48	17.87
	4H	18.46	18.95	19.51	20.00	21.42	15.38	15.88	16.44	16.92	18.34
	6H	18.91	19.33	19.97	20.40	21.82	15.81	16.23	16.88	17.31	18.72
	8H	19.04	19.43	20.10	20.50	21.93	15.93	16.33	17.00	17.39	18.82
	12H	19.09	19.45	20.17	20.52	21.96	15.95	16.31	17.03	17.39	18.82
8H	4H	18.48	18.88	19.54	19.94	21.37	15.68	16.08	16.75	17.14	18.57
	6H	19.02	19.35	20.11	20.46	21.89	16.21	16.54	17.30	17.65	19.07
	8H	19.22	19.51	20.32	20.60	22.05	16.39	16.68	17.49	17.77	19.22
	12H	19.32	19.58	20.42	20.66	22.15	16.45	16.71	17.55	17.79	19.28
12H	4H	18.43	18.79	19.52	19.87	21.30	15.69	16.05	16.78	17.13	18.56
	6H	19.01	19.30	20.11	20.39	21.83	16.27	16.56	17.37	17.65	19.09
	8H	19.22	19.47	20.32	20.56	22.04	16.47	16.73	17.57	17.81	19.30