

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: P854175

Luminaire Tested: SQ2-PR1-050U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854175
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-050U-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

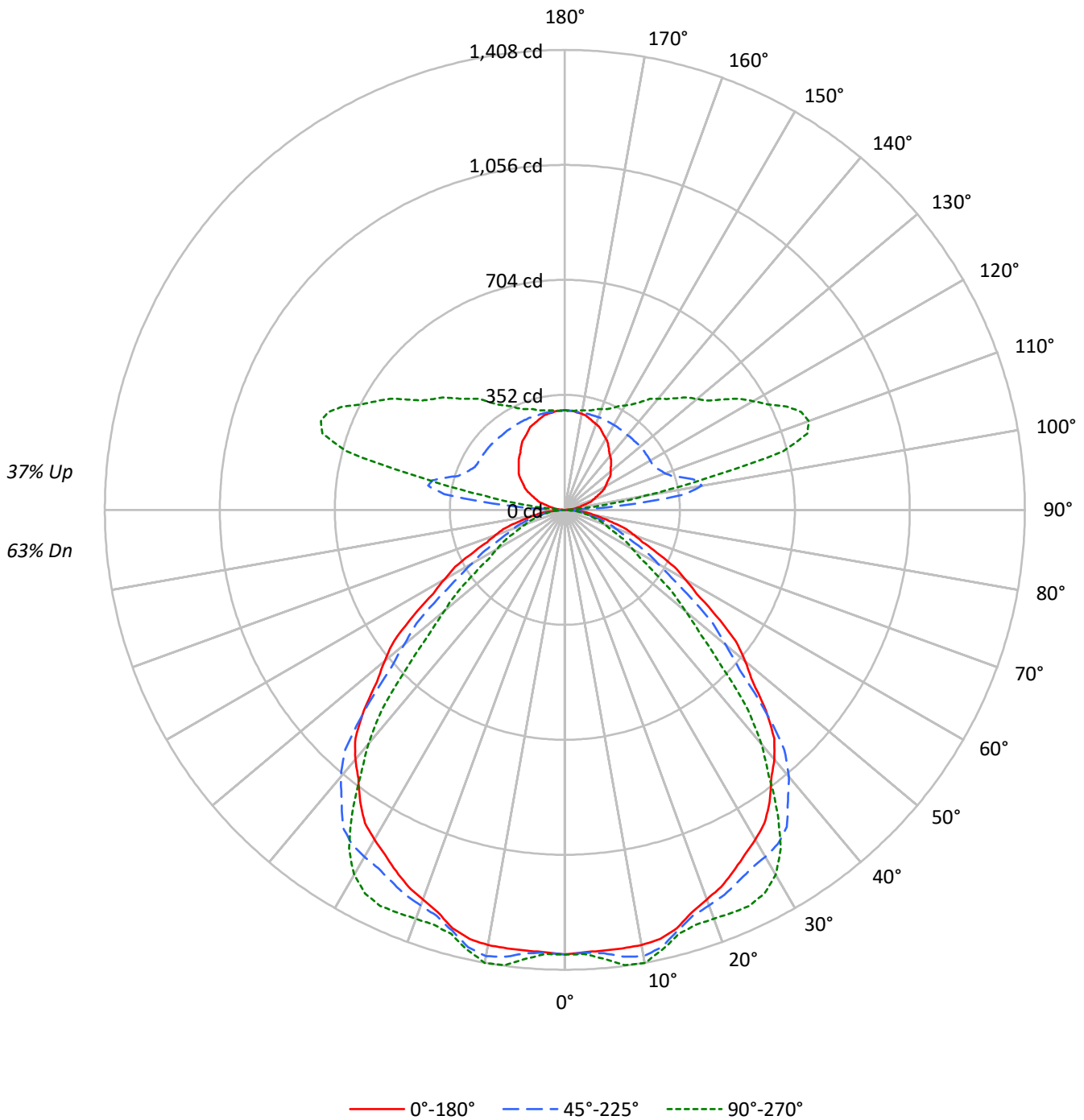
Lumens per Lamp: N/A
Luminaire Lumens: 5165.2 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.5
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

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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	0
RCR																		
0	110	110	110	110	104	104	104	104	91	91	91	79	79	79	68	68	68	63
1	102	98	94	91	95	92	89	86	81	79	76	71	69	68	62	61	59	55
2	93	86	80	75	87	81	76	72	72	68	64	63	60	58	55	53	51	47
3	85	76	69	64	80	72	66	61	64	59	55	57	53	50	50	47	44	41
4	79	68	60	54	74	64	57	52	57	52	48	51	47	43	45	42	39	36
5	72	61	53	47	68	58	51	45	52	46	42	46	41	38	41	37	34	31
6	67	55	47	41	63	52	45	40	47	41	37	42	37	33	37	33	30	28
7	62	50	42	37	58	47	40	35	43	37	32	38	33	30	34	30	27	25
8	58	45	38	33	54	43	36	31	39	33	29	35	30	27	31	27	25	22
9	54	42	34	29	51	40	33	28	36	30	26	32	28	24	29	25	22	20
10	50	38	31	26	47	37	30	25	33	28	24	30	25	22	27	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21976	21976	21976
5°	21948	22083	22352
10°	22179	22748	23089
15°	22171	22288	22474
20°	21813	22148	22886
25°	21752	22370	23828
30°	21729	22866	24056
35°	21522	23355	22397
40°	21026	22489	19711
45°	19895	19737	15586
50°	18088	16136	12095
55°	15896	13278	9413
60°	13756	10618	7750
65°	11874	8798	6785
70°	10678	7794	6024
75°	9782	6750	5540
80°	8517	5421	5421
85°	6169	4891	2575

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 21507 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.4	2.5
10°-20°	380.5	7.4
20°-30°	588.2	11.4
30°-40°	707.4	13.7
40°-50°	635.2	12.3
50°-60°	425.5	8.2
60°-70°	247.5	4.8
70°-80°	127.1	2.5
80°-90°	31.8	0.6
90°-100°	121.3	2.3
100°-110°	384.6	7.4
110°-120°	377.1	7.3
120°-130°	306.9	5.9
130°-140°	250.2	4.8
140°-150°	195.1	3.8
150°-160°	140.6	2.7
160°-170°	85.9	1.7
170°-180°	29.0	0.6
0°-30°	1100.1	21.3
0°-40°	1807.5	35.0
0°-60°	2868.3	55.5
0°-90°	3274.7	63.4
90°-120°	883.0	17.1
90°-150°	1635.1	31.7
90°-180°	1891.0	36.6
0°-180°	5165.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1361	1361	1361	1361	1361	
5°	1354	1377	1362	1366	1379	129
15°	1326	1381	1333	1338	1344	372
25°	1221	1270	1256	1302	1338	563
35°	1092	1101	1185	1162	1136	681
45°	871	942	864	729	683	667
55°	565	586	472	364	334	507
65°	311	318	230	187	178	314
75°	157	153	108	92	89	166
85°	33	26	26	18	14	41
90°	0	1	3	3	3	2
95°	16	49	220	82	53	19
105°	67	94	379	722	692	71
115°	120	142	306	636	749	118
125°	166	185	302	499	588	147
135°	200	220	300	429	483	154
145°	234	251	300	370	403	146
155°	266	276	301	331	344	123
165°	290	293	302	313	316	82
175°	304	302	304	305	304	29
180°	304	304	304	304	304	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1361.1	1361.1	1361.1	1361.1	1361.1
2.5°	1355.6	1371.8	1356.7	1357.9	1361.1
5°	1354.2	1377.2	1362.5	1365.6	1379.1
7.5°	1353.9	1386.7	1379.7	1388.2	1406.1
10°	1352.8	1392.1	1387.5	1389.3	1408.3
12.5°	1346.1	1392.0	1370.8	1369.1	1379.4
15°	1326.4	1380.7	1333.4	1337.7	1344.5
17.5°	1291.7	1348.4	1303.4	1318.7	1332.0
20°	1269.5	1325.2	1289.0	1308.9	1332.0
22.5°	1249.6	1305.2	1275.6	1303.6	1335.3
25°	1221.0	1269.8	1255.7	1302.2	1337.5
27.5°	1191.0	1219.8	1236.5	1299.0	1323.6
30°	1165.5	1184.5	1226.5	1280.9	1290.3
32.5°	1137.7	1149.1	1213.2	1241.5	1229.3
35°	1091.9	1101.4	1184.9	1162.1	1136.3
37.5°	1037.6	1057.1	1121.4	1055.7	1026.2
40°	997.6	1030.2	1067.0	969.1	935.2
42.5°	948.8	1000.8	994.8	870.1	828.6
45°	871.3	941.9	864.4	728.8	682.6
47.5°	780.0	852.5	725.6	604.5	561.4
50°	720.1	778.4	642.4	528.9	481.5
52.5°	659.0	701.1	571.4	458.0	414.9
55°	564.7	586.4	471.7	364.2	334.4
57.5°	478.1	492.0	385.4	294.2	272.2
60°	426.0	435.4	328.8	257.7	240.0
62.5°	378.2	385.6	283.3	226.7	213.4
65°	310.8	317.6	230.3	187.1	177.6
67.5°	257.2	260.8	189.5	155.5	146.5
70°	226.2	227.5	165.1	134.4	127.6
72.5°	198.4	196.5	141.8	116.7	112.1
75°	156.8	152.7	108.2	91.5	88.8
77.5°	117.1	112.8	76.0	70.5	70.5
80°	91.6	86.1	58.3	58.3	58.3
82.5°	68.3	60.7	45.0	44.9	43.8
85°	33.3	26.5	26.4	17.9	13.9
87.5°	8.9	9.1	3.9	3.9	3.9
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.3	68.0	22.6	15.9
95°	16.3	49.0	220.2	81.7	52.7
97.5°	30.3	63.6	373.0	233.1	143.0
100°	40.2	72.0	425.1	387.5	251.8
102.5°	50.9	81.3	415.9	569.1	435.6
105°	67.0	94.2	379.1	722.1	692.1
107.5°	83.1	108.2	344.1	738.1	778.5
110°	93.8	118.2	326.4	719.7	794.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.5	127.4	316.5	688.0	783.1
115°	119.7	142.1	306.3	636.3	748.6
117.5°	134.4	155.8	302.3	586.5	699.8
120°	143.6	164.2	301.6	555.8	665.3
122.5°	152.8	172.6	301.6	531.1	633.2
125°	165.6	185.3	301.6	498.9	587.8
127.5°	176.9	195.8	301.6	473.9	549.7
130°	183.8	203.5	301.6	459.2	527.5
132.5°	190.7	210.4	300.8	447.5	509.1
135°	200.1	219.7	299.6	429.2	483.4
137.5°	209.3	229.9	299.5	411.6	460.1
140°	215.4	236.0	298.7	399.2	443.2
142.5°	223.1	242.9	299.5	386.9	427.9
145°	233.6	251.4	299.6	370.3	403.0
147.5°	244.1	259.3	299.8	355.6	382.4
150°	251.8	263.9	300.6	347.0	368.6
152.5°	257.9	268.6	300.6	340.1	357.8
155°	266.1	275.5	300.6	330.6	343.7
157.5°	274.9	281.3	301.6	324.7	333.7
160°	279.5	285.2	301.6	320.9	328.4
162.5°	284.1	288.3	301.6	317.8	323.0
165°	290.1	292.9	301.6	313.1	315.9
167.5°	295.6	296.4	302.5	309.8	312.3
170°	298.7	298.7	302.5	308.3	309.2
172.5°	300.2	301.0	302.5	306.7	306.9
175°	303.5	302.5	303.5	305.4	304.4
177.5°	304.4	303.7	303.7	305.2	303.7
180°	304.4	304.4	304.4	304.4	304.4



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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	18.69	19.63	19.53	20.48	21.55	15.41	16.35	16.25	17.21	18.28
	3H	19.93	20.77	20.78	21.63	22.73	16.48	17.32	17.34	18.19	19.29
	4H	20.38	21.17	21.25	22.05	23.16	16.89	17.68	17.76	18.55	19.66
	6H	20.70	21.43	21.59	22.31	23.43	17.22	17.95	18.11	18.83	19.95
	8H	20.79	21.48	21.68	22.38	23.50	17.31	18.00	18.20	18.90	20.02
	12H	20.82	21.48	21.72	22.37	23.52	17.32	17.98	18.22	18.87	20.02
4H	2H	18.77	19.57	19.65	20.44	21.55	15.99	16.78	16.87	17.65	18.76
	3H	20.25	20.91	21.14	21.82	22.94	17.26	17.92	18.15	18.82	19.95
	4H	20.85	21.45	21.75	22.35	23.50	17.77	18.37	18.67	19.27	20.42
	6H	21.31	21.82	22.22	22.75	23.90	18.21	18.73	19.13	19.65	20.80
	8H	21.44	21.92	22.36	22.84	24.01	18.34	18.82	19.25	19.74	20.90
	12H	21.50	21.93	22.43	22.87	24.04	18.36	18.79	19.30	19.73	20.90
8H	4H	20.88	21.36	21.80	22.28	23.45	18.08	18.56	19.00	19.48	20.65
	6H	21.44	21.83	22.38	22.79	23.96	18.62	19.02	19.57	19.98	21.14
	8H	21.63	21.98	22.59	22.94	24.12	18.81	19.16	19.76	20.11	21.29
	12H	21.74	22.05	22.69	23.00	24.23	18.87	19.18	19.83	20.13	21.36
12H	4H	20.85	21.28	21.78	22.21	23.38	18.10	18.53	19.04	19.47	20.64
	6H	21.42	21.77	22.37	22.73	23.91	18.68	19.03	19.63	19.99	21.17
	8H	21.64	21.95	22.59	22.89	24.12	18.89	19.20	19.85	20.15	21.38