

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: P854008

Luminaire Tested: SQ2-PH1-050U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854008
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

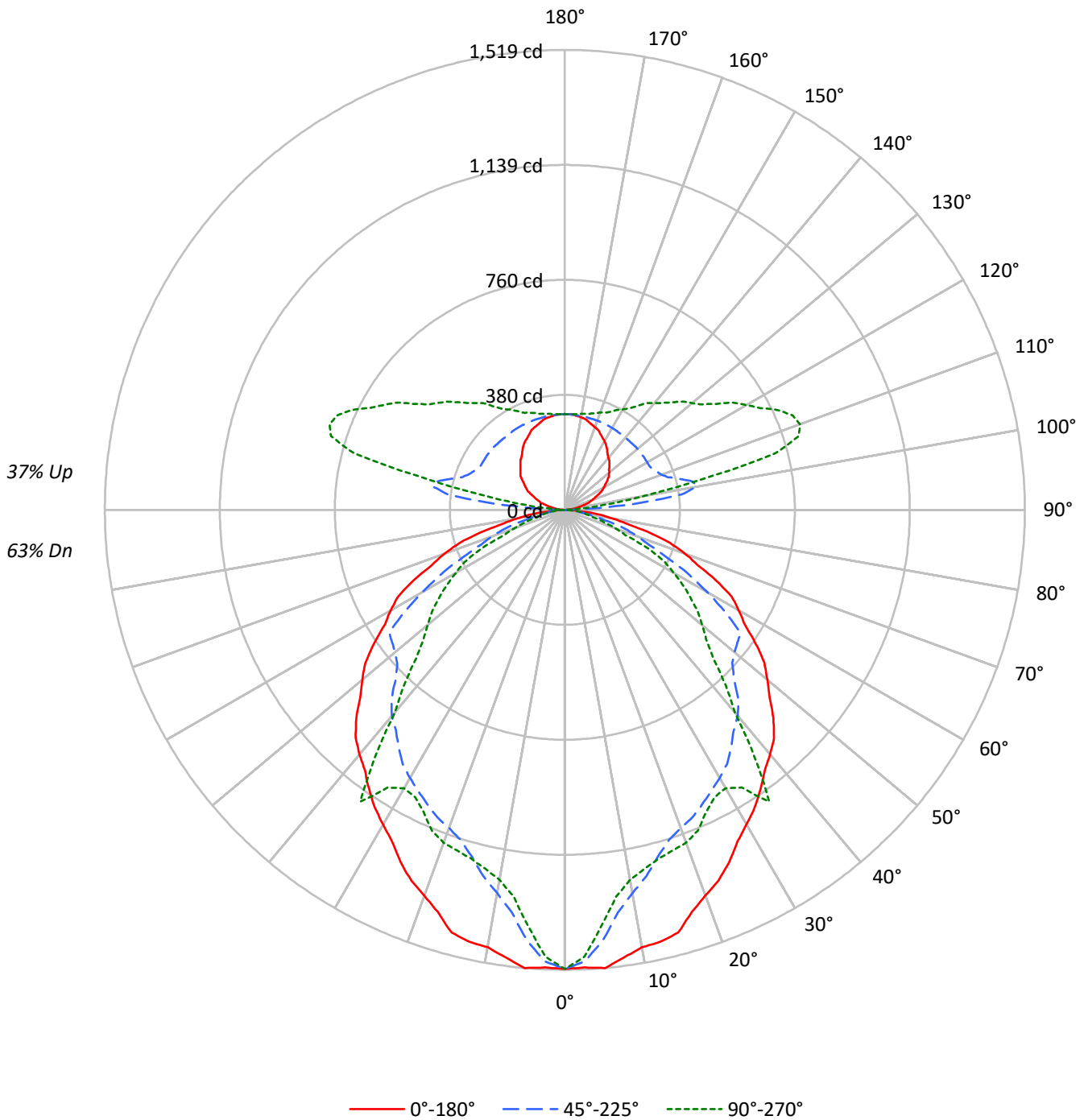
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5319.5 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
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									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	50	30	10	50	30	10	50	30	10	0																
RCR	0	110	110	110	110	103	103	103	103	91	91	91	79	79	79	68	68	68	68	63	63	63	63	63	63	63	63	63	63	63																
	1	101	97	93	89	95	91	88	84	80	77	75	70	68	66	61	59	58	58	54	54	54	54	54	54	54	54	54	54	54																
	2	92	85	79	73	86	80	74	70	70	66	63	62	59	56	54	51	49	49	45	45	45	45	45	45	45	45	45	45	45																
	3	84	75	67	61	79	70	64	58	62	57	53	55	51	47	48	45	42	42	39	39	39	39	39	39	39	39	39	39	39																
	4	77	66	58	52	72	62	55	50	55	50	45	49	44	41	43	39	36	36	33	33	33	33	33	33	33	33	33	33	33																
	5	71	59	51	45	66	56	48	43	50	44	39	44	39	35	38	35	32	32	29	29	29	29	29	29	29	29	29	29	29																
	6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	28	25	25	25	25	25	25	25	25	25	25	25																
	7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	25	22	22	22	22	22	22	22	22	22	22	22																
	8	56	44	36	30	53	41	34	29	37	31	27	33	28	25	29	25	22	22	20	20	20	20	20	20	20	20	20	20	20																
	9	52	40	32	27	49	38	31	26	34	28	24	30	26	22	27	23	20	20	18	18	18	18	18	18	18	18	18	18	18																
	10	49	37	29	24	46	35	28	24	31	26	22	28	23	20	25	21	18	18	16	16	16	16	16	16	16	16	16	16	16																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24480	24480	24480
5°	24619	23148	22374
10°	24053	21072	20340
15°	24162	19821	19941
20°	23299	19210	20101
25°	22873	19121	19634
30°	22376	19069	19794
35°	22208	18851	23201
40°	22226	18729	18396
45°	22233	18018	15844
50°	21923	18372	14858
55°	21644	19938	14252
60°	21429	17470	13369
65°	21054	14162	11629
70°	19884	12052	8308
75°	17729	9089	6301
80°	14486	5904	5904
85°	9077	5354	4001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22233 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	2.5
10°-20°	350.9	6.6
20°-30°	514.5	9.7
30°-40°	623.1	11.7
40°-50°	612.8	11.5
50°-60°	533.4	10.0
60°-70°	370.8	7.0
70°-80°	175.8	3.3
80°-90°	39.2	0.7
90°-100°	126.1	2.4
100°-110°	399.9	7.5
110°-120°	392.1	7.4
120°-130°	319.0	6.0
130°-140°	260.1	4.9
140°-150°	202.8	3.8
150°-160°	146.1	2.7
160°-170°	89.3	1.7
170°-180°	30.1	0.6
0°-30°	998.9	18.8
0°-40°	1622.0	30.5
0°-60°	2768.2	52.0
0°-90°	3354.0	63.1
90°-120°	918.0	17.3
90°-150°	1700.0	32.0
90°-180°	1966.0	37.0
0°-180°	5319.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1519	1518	1428	1383	1380	143
15°	1446	1288	1186	1178	1193	403
25°	1284	1092	1073	1106	1102	590
35°	1127	911	956	1039	1177	706
45°	974	721	789	817	694	748
55°	769	562	708	511	506	687
65°	551	386	371	304	304	541
75°	284	197	146	104	101	301
85°	49	32	29	23	22	66
90°	0	1	3	3	3	2
95°	17	51	229	85	55	20
105°	70	98	394	751	720	73
115°	124	148	318	662	778	123
125°	172	193	314	519	611	153
135°	208	228	312	446	503	161
145°	243	261	312	385	419	152
155°	277	286	312	344	357	128
165°	302	304	314	326	328	85
175°	316	315	316	318	316	30
180°	316	316	316	316	316	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1516.2	1516.2	1516.2	1516.2	1516.2
2.5°	1512.7	1528.5	1493.1	1479.2	1476.9
5°	1519.0	1517.6	1428.2	1383.4	1380.5
7.5°	1491.3	1447.6	1340.7	1291.3	1289.1
10°	1467.1	1400.8	1285.3	1240.6	1240.6
12.5°	1461.3	1356.7	1240.3	1207.3	1214.1
15°	1445.5	1287.5	1185.8	1177.5	1193.0
17.5°	1393.0	1222.8	1143.4	1162.3	1180.3
20°	1356.0	1188.2	1118.0	1153.0	1169.9
22.5°	1324.9	1154.8	1099.5	1137.8	1146.9
25°	1283.9	1092.1	1073.3	1106.4	1102.1
27.5°	1234.8	1034.6	1047.0	1067.3	1069.8
30°	1200.2	999.9	1022.8	1043.4	1061.7
32.5°	1166.8	959.7	996.2	1045.1	1087.1
35°	1126.7	910.8	956.4	1038.9	1177.1
37.5°	1084.5	853.2	916.3	985.7	1029.7
40°	1054.5	811.9	888.6	974.3	872.8
42.5°	1022.2	779.6	847.1	957.7	786.2
45°	973.7	721.3	789.1	816.6	693.9
47.5°	916.6	676.0	749.9	681.0	633.0
50°	872.8	645.7	731.4	622.5	591.5
52.5°	830.1	614.3	718.7	574.2	553.4
55°	768.9	561.5	708.3	510.6	506.3
57.5°	704.0	507.9	626.4	455.2	462.5
60°	663.6	473.2	541.0	422.5	414.0
62.5°	620.9	439.5	461.3	380.9	372.5
65°	551.1	386.0	370.7	304.4	304.4
67.5°	474.3	330.4	300.3	249.1	215.2
70°	421.2	294.3	255.3	198.6	176.0
72.5°	364.7	255.8	209.2	162.7	136.8
75°	284.2	196.7	145.7	103.8	101.0
77.5°	205.4	141.7	98.1	77.0	77.3
80°	155.8	107.8	63.5	62.1	63.5
82.5°	109.6	74.1	47.3	49.3	49.6
85°	49.0	32.1	28.9	23.0	21.6
87.5°	10.4	9.5	6.4	6.4	6.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.1	70.7	23.5	16.5
95°	16.9	51.0	228.9	84.9	54.7
97.5°	31.5	66.1	387.8	242.3	148.7
100°	41.8	74.9	441.9	402.9	261.8
102.5°	53.0	84.5	432.4	591.7	452.9
105°	69.7	97.9	394.2	750.8	719.6
107.5°	86.4	112.5	357.7	767.4	809.4
110°	97.5	122.8	339.4	748.3	826.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.7	132.4	329.1	715.3	814.2
115°	124.4	147.8	318.5	661.6	778.4
117.5°	139.7	161.9	314.3	609.8	727.6
120°	149.3	170.7	313.5	577.9	691.8
122.5°	158.9	179.5	313.5	552.2	658.3
125°	172.2	192.6	313.5	518.7	611.1
127.5°	183.9	203.6	313.5	492.7	571.5
130°	191.1	211.5	313.5	477.4	548.4
132.5°	198.3	218.7	312.7	465.3	529.3
135°	208.0	228.5	311.5	446.2	502.7
137.5°	217.6	239.0	311.3	428.0	478.4
140°	224.0	245.4	310.5	415.1	460.8
142.5°	231.9	252.5	311.3	402.3	444.9
145°	242.9	261.4	311.5	385.0	419.0
147.5°	253.8	269.6	311.7	369.7	397.5
150°	261.8	274.4	312.5	360.8	383.2
152.5°	268.1	279.2	312.5	353.6	372.1
155°	276.7	286.4	312.5	343.7	357.3
157.5°	285.9	292.5	313.5	337.6	347.0
160°	290.6	296.5	313.5	333.6	341.4
162.5°	295.4	299.7	313.5	330.4	335.8
165°	301.6	304.5	313.5	325.5	328.5
167.5°	307.4	308.1	314.5	322.2	324.7
170°	310.5	310.5	314.5	320.5	321.5
172.5°	312.1	312.9	314.5	318.9	319.1
175°	315.5	314.6	315.5	317.5	316.5
177.5°	316.5	315.7	315.7	317.3	315.7
180°	316.5	316.5	316.5	316.5	316.5



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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	19.57	20.55	20.40	21.41	22.48	18.24	19.22	19.08	20.08	21.15
	3H	21.60	22.48	22.45	23.35	24.45	19.28	20.16	20.13	21.03	22.13
	4H	22.34	23.17	23.20	24.04	25.15	19.50	20.33	20.37	21.21	22.32
	6H	22.83	23.59	23.71	24.48	25.60	19.65	20.42	20.53	21.30	22.42
	8H	22.96	23.68	23.84	24.59	25.71	19.69	20.42	20.58	21.32	22.44
	12H	23.01	23.70	23.90	24.59	25.74	19.69	20.38	20.58	21.28	22.43
4H	2H	19.96	20.79	20.83	21.66	22.77	18.89	19.73	19.77	20.60	21.71
	3H	22.07	22.76	22.96	23.67	24.80	20.09	20.78	20.97	21.68	22.81
	4H	22.89	23.52	23.79	24.43	25.58	20.37	21.00	21.26	21.90	23.05
	6H	23.49	24.03	24.40	24.96	26.11	20.58	21.12	21.49	22.05	23.21
	8H	23.66	24.16	24.57	25.09	26.25	20.64	21.15	21.55	22.07	23.24
	12H	23.73	24.19	24.66	25.13	26.30	20.65	21.11	21.59	22.05	23.22
8H	4H	22.92	23.43	23.83	24.35	25.52	20.59	21.10	21.51	22.02	23.19
	6H	23.58	23.99	24.52	24.96	26.13	20.87	21.29	21.81	22.25	23.42
	8H	23.80	24.17	24.75	25.13	26.31	20.97	21.34	21.92	22.30	23.48
	12H	23.92	24.25	24.88	25.20	26.43	21.02	21.35	21.98	22.30	23.53
12H	4H	22.88	23.33	23.81	24.27	25.45	20.59	21.05	21.53	21.99	23.16
	6H	23.55	23.92	24.50	24.88	26.06	20.90	21.27	21.85	22.23	23.41
	8H	23.79	24.12	24.74	25.06	26.30	21.02	21.35	21.97	22.29	23.53