

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: P854176

Luminaire Tested: SQ2-PR1-050U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854176
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-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

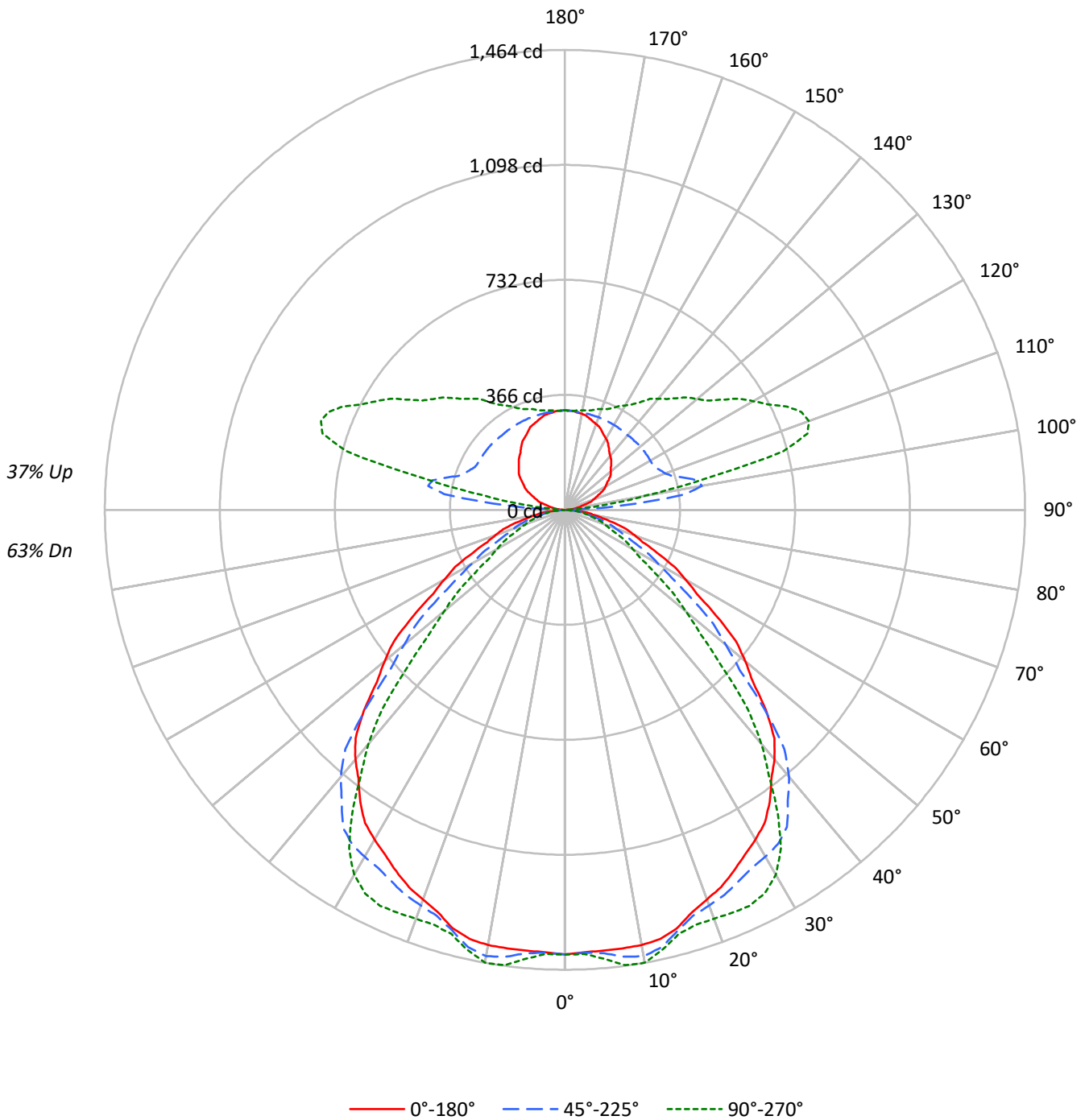
Lumens per Lamp: N/A
Luminaire Lumens: 5370.3 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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				
RC	80					70					50					30				
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°	22850	22850	22850
5°	22820	22960	23240
10°	23059	23651	24005
15°	23052	23173	23366
20°	22680	23027	23795
25°	22616	23257	24773
30°	22592	23774	25012
35°	22377	24283	23288
40°	21861	23381	20493
45°	20685	20521	16205
50°	18806	16777	12574
55°	16527	13807	9788
60°	14302	11041	8060
65°	12344	9150	7056
70°	11098	8105	6264
75°	10168	7018	5758
80°	8852	5635	5635
85°	6410	5076	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22361 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.7	2.5
10°-20°	395.6	7.4
20°-30°	611.5	11.4
30°-40°	735.5	13.7
40°-50°	660.4	12.3
50°-60°	442.5	8.2
60°-70°	257.4	4.8
70°-80°	132.2	2.5
80°-90°	33.0	0.6
90°-100°	126.1	2.3
100°-110°	399.9	7.4
110°-120°	392.1	7.3
120°-130°	319.0	5.9
130°-140°	260.1	4.8
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°	1143.8	21.3
0°-40°	1879.3	35.0
0°-60°	2982.2	55.5
0°-90°	3404.8	63.4
90°-120°	918.0	17.1
90°-150°	1700.0	31.7
90°-180°	1966.0	36.6
0°-180°	5370.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1415	1415	1415	1415	1415	
5°	1408	1432	1417	1420	1434	134
15°	1379	1436	1386	1391	1398	387
25°	1270	1320	1306	1354	1391	585
35°	1135	1145	1232	1208	1182	708
45°	906	979	899	758	710	693
55°	587	610	490	379	348	528
65°	323	330	240	194	185	327
75°	163	159	112	95	92	173
85°	35	28	27	19	14	43
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°	1415.2	1415.2	1415.2	1415.2	1415.2
2.5°	1409.4	1426.3	1410.6	1411.8	1415.2
5°	1408.0	1431.9	1416.6	1419.8	1433.9
7.5°	1407.7	1441.8	1434.5	1443.3	1461.9
10°	1406.5	1447.4	1442.6	1444.5	1464.2
12.5°	1399.6	1447.3	1425.3	1423.5	1434.2
15°	1379.1	1435.5	1386.3	1390.8	1397.9
17.5°	1343.0	1402.0	1355.2	1371.1	1384.9
20°	1320.0	1377.8	1340.2	1360.9	1384.9
22.5°	1299.2	1357.0	1326.3	1355.3	1388.3
25°	1269.5	1320.2	1305.5	1354.0	1390.6
27.5°	1238.3	1268.2	1285.6	1350.6	1376.2
30°	1211.8	1231.5	1275.2	1331.7	1341.6
32.5°	1182.9	1194.8	1261.4	1290.8	1278.1
35°	1135.3	1145.2	1232.0	1208.3	1181.5
37.5°	1078.8	1099.1	1165.9	1097.7	1066.9
40°	1037.2	1071.1	1109.3	1007.6	972.3
42.5°	986.4	1040.6	1034.3	904.7	861.5
45°	905.9	979.3	898.7	757.7	709.7
47.5°	811.0	886.3	754.5	628.5	583.7
50°	748.7	809.4	667.9	549.9	500.6
52.5°	685.2	729.0	594.1	476.2	431.3
55°	587.1	609.7	490.5	378.7	347.7
57.5°	497.1	511.5	400.7	305.9	283.0
60°	442.9	452.7	341.9	267.9	249.6
62.5°	393.2	400.9	294.6	235.7	221.9
65°	323.1	330.2	239.5	194.5	184.7
67.5°	267.5	271.1	197.1	161.6	152.3
70°	235.1	236.6	171.7	139.8	132.7
72.5°	206.3	204.3	147.4	121.4	116.6
75°	163.0	158.8	112.5	95.1	92.3
77.5°	121.8	117.2	79.1	73.3	73.3
80°	95.2	89.6	60.6	60.6	60.6
82.5°	71.0	63.1	46.7	46.7	45.6
85°	34.6	27.6	27.4	18.7	14.4
87.5°	9.2	9.4	4.1	4.1	4.1
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	18.82	19.76	19.66	20.62	21.69	15.55	16.49	16.39	17.34	18.41
	3H	20.06	20.90	20.92	21.77	22.87	16.62	17.46	17.48	18.33	19.42
	4H	20.52	21.31	21.39	22.18	23.29	17.02	17.81	17.89	18.69	19.80
	6H	20.84	21.57	21.72	22.45	23.57	17.36	18.09	18.24	18.97	20.09
	8H	20.92	21.61	21.82	22.51	23.63	17.45	18.14	18.34	19.04	20.16
	12H	20.95	21.61	21.85	22.51	23.65	17.46	18.12	18.35	19.01	20.15
4H	2H	18.91	19.70	19.79	20.58	21.68	16.13	16.92	17.00	17.79	18.90
	3H	20.39	21.04	21.28	21.95	23.07	17.40	18.05	18.29	18.96	20.08
	4H	20.99	21.58	21.89	22.49	23.63	17.91	18.50	18.81	19.41	20.56
	6H	21.44	21.96	22.36	22.88	24.04	18.35	18.86	19.26	19.79	20.94
	8H	21.58	22.06	22.49	22.98	24.14	18.47	18.95	19.39	19.87	21.04
	12H	21.64	22.07	22.57	23.00	24.17	18.50	18.93	19.43	19.87	21.04
8H	4H	21.02	21.50	21.94	22.42	23.58	18.22	18.70	19.14	19.62	20.78
	6H	21.57	21.97	22.51	22.93	24.09	18.76	19.15	19.70	20.12	21.28
	8H	21.77	22.12	22.72	23.07	24.25	18.94	19.29	19.90	20.25	21.43
	12H	21.88	22.19	22.83	23.13	24.36	19.01	19.32	19.96	20.26	21.50
12H	4H	20.98	21.41	21.92	22.35	23.52	18.24	18.67	19.18	19.61	20.78
	6H	21.56	21.91	22.51	22.86	24.04	18.82	19.17	19.77	20.12	21.30
	8H	21.77	22.08	22.73	23.03	24.26	19.03	19.34	19.98	20.28	21.52