

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: P854259

Luminaire Tested: SQ2-PW1-050U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854259
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050U-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

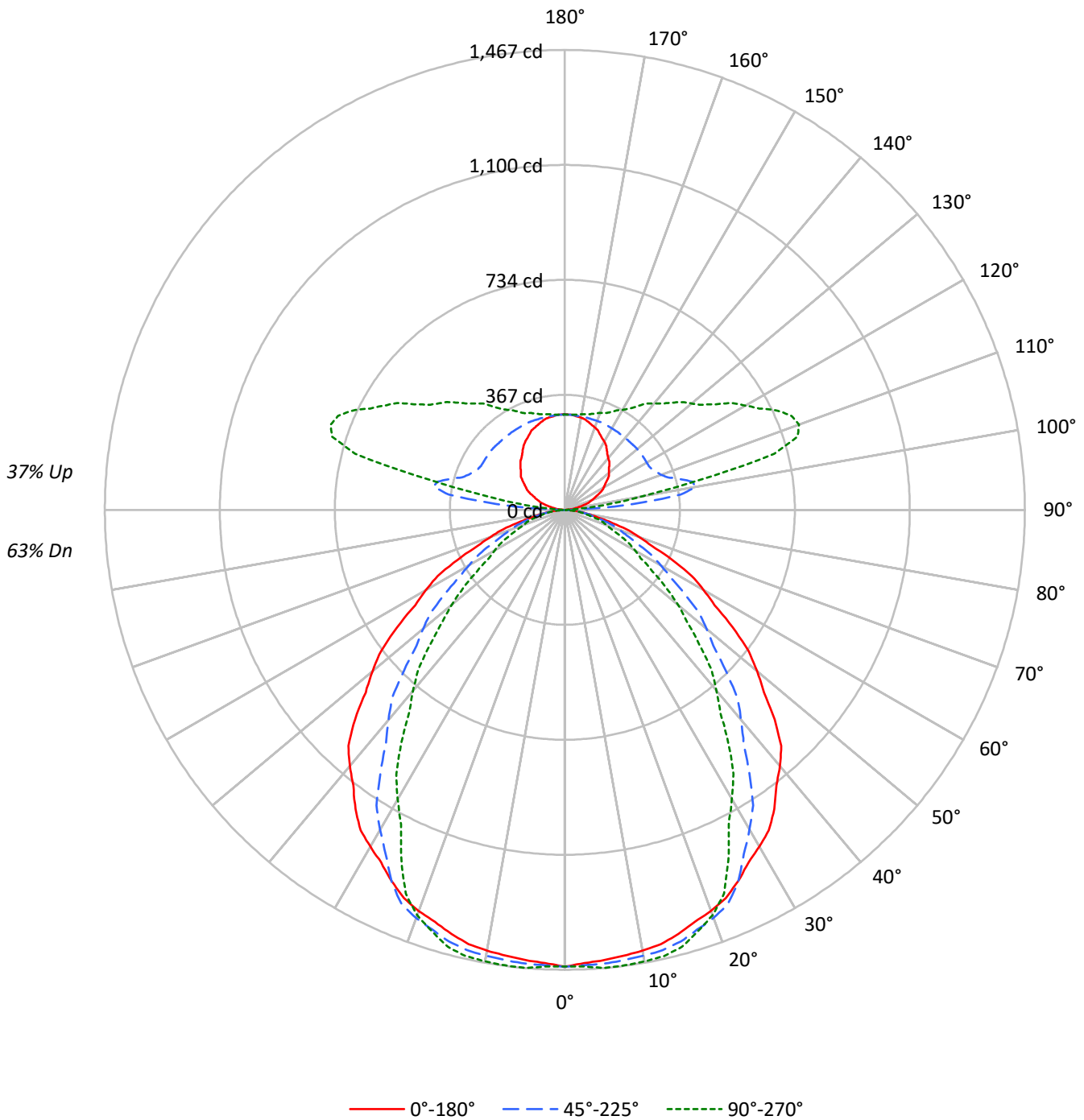
Lumens per Lamp: N/A
Luminaire Lumens: 5123.4 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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	103	103	103	103	91	91	91	79	79	79	68	68	68	63
1	101	97	94	90	95	92	88	85	81	78	76	71	69	67	61	60	59	55
2	93	86	80	75	87	81	76	71	72	68	64	63	60	57	55	53	51	47
3	85	76	69	63	80	72	66	60	64	59	55	56	53	49	49	46	44	41
4	78	68	60	54	73	64	57	52	57	52	47	51	46	43	45	41	39	35
5	72	61	53	47	68	58	50	45	52	46	41	46	41	38	40	37	34	31
6	67	55	47	41	63	52	45	40	47	41	36	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	46	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	27	48	37	30	26	33	28	24	30	25	22	27	23	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23521	23521	23521
5°	23365	23545	23770
10°	23407	23681	23976
15°	23402	23841	24120
20°	23411	23816	23649
25°	23284	23309	21975
30°	23126	21962	19867
35°	22945	20209	17940
40°	22489	18423	15850
45°	21607	16568	13844
50°	20110	14812	11848
55°	18396	13084	9607
60°	16488	11380	8289
65°	14418	9807	7370
70°	11788	8710	6680
75°	9177	7530	6145
80°	6834	6453	5421
85°	4631	4891	3075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21607 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.7	2.7
10°-20°	401.9	7.8
20°-30°	591.5	11.5
30°-40°	646.7	12.6
40°-50°	580.2	11.3
50°-60°	432.8	8.4
60°-70°	273.5	5.3
70°-80°	135.5	2.6
80°-90°	32.1	0.6
90°-100°	121.3	2.4
100°-110°	384.6	7.5
110°-120°	377.1	7.4
120°-130°	306.9	6.0
130°-140°	250.2	4.9
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°	1132.2	22.1
0°-40°	1778.9	34.7
0°-60°	2791.8	54.5
0°-90°	3232.9	63.1
90°-120°	883.0	17.2
90°-150°	1635.1	31.9
90°-180°	1891.0	36.9
0°-180°	5123.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1442	1465	1453	1454	1467	137
15°	1400	1427	1426	1436	1443	395
25°	1307	1336	1308	1254	1234	602
35°	1164	1152	1025	936	910	726
45°	946	870	726	635	606	726
55°	654	591	465	364	341	584
65°	377	346	257	206	193	374
75°	147	158	121	101	98	162
85°	25	32	26	18	17	32
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°	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1446.9	1465.3	1453.5	1454.7	1458.0
5°	1441.6	1464.6	1452.7	1454.4	1466.6
7.5°	1434.4	1457.7	1448.8	1453.8	1465.7
10°	1427.7	1452.1	1444.4	1451.5	1462.4
12.5°	1418.8	1444.3	1438.8	1447.1	1458.0
15°	1400.0	1427.1	1426.3	1436.2	1443.0
17.5°	1378.0	1405.2	1403.8	1406.4	1409.7
20°	1362.5	1389.6	1386.1	1376.4	1376.4
22.5°	1340.3	1369.6	1360.6	1334.0	1325.3
25°	1307.0	1335.5	1308.4	1253.8	1233.5
27.5°	1268.2	1291.2	1236.8	1159.3	1131.1
30°	1240.4	1258.0	1178.0	1092.7	1065.6
32.5°	1211.5	1218.3	1118.0	1029.4	1000.1
35°	1164.1	1151.9	1025.3	936.0	910.2
37.5°	1108.0	1071.7	936.3	842.7	814.2
40°	1067.0	1015.4	874.1	780.5	752.0
42.5°	1021.5	956.9	815.3	721.6	692.1
45°	946.3	870.3	725.6	634.8	606.3
47.5°	861.6	786.2	641.8	553.9	529.5
50°	800.6	727.3	589.7	501.6	471.7
52.5°	738.4	672.8	538.6	448.1	407.4
55°	653.5	591.1	464.8	364.4	341.3
57.5°	566.1	512.1	397.9	306.8	287.8
60°	510.6	463.1	352.4	275.7	256.7
62.5°	457.3	415.3	308.0	246.9	231.2
65°	377.4	346.2	256.7	206.4	192.9
67.5°	299.7	282.3	213.4	169.3	160.4
70°	249.7	244.3	184.5	148.3	141.5
72.5°	206.5	208.6	156.8	128.4	123.8
75°	147.1	157.9	120.7	101.2	98.5
77.5°	100.2	116.5	89.4	74.9	72.7
80°	73.5	89.8	69.4	58.3	58.3
82.5°	51.3	64.4	49.4	43.8	43.8
85°	25.0	31.8	26.4	18.0	16.6
87.5°	6.7	10.1	5.0	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	19.17	20.11	20.02	20.97	22.05	15.66	16.60	16.50	17.46	18.53
	3H	20.50	21.34	21.36	22.21	23.31	16.87	17.71	17.73	18.58	19.68
	4H	20.88	21.67	21.75	22.55	23.66	17.32	18.11	18.19	18.99	20.10
	6H	21.08	21.81	21.97	22.70	23.82	17.64	18.37	18.53	19.25	20.38
	8H	21.12	21.81	22.01	22.71	23.84	17.72	18.41	18.61	19.31	20.44
	12H	21.12	21.78	22.02	22.67	23.82	17.73	18.39	18.63	19.29	20.44
4H	2H	19.28	20.08	20.16	20.95	22.07	16.35	17.14	17.23	18.02	19.13
	3H	20.84	21.49	21.73	22.40	23.53	17.75	18.40	18.64	19.31	20.44
	4H	21.35	21.95	22.25	22.85	24.00	18.29	18.89	19.20	19.80	20.95
	6H	21.68	22.20	22.60	23.13	24.28	18.70	19.22	19.62	20.15	21.30
	8H	21.76	22.24	22.68	23.17	24.34	18.81	19.29	19.73	20.21	21.38
	12H	21.78	22.21	22.72	23.16	24.33	18.84	19.27	19.77	20.21	21.38
8H	4H	21.39	21.87	22.31	22.80	23.96	18.63	19.11	19.55	20.03	21.20
	6H	21.83	22.23	22.78	23.19	24.36	19.14	19.53	20.08	20.50	21.67
	8H	21.98	22.33	22.93	23.28	24.47	19.30	19.65	20.25	20.61	21.79
	12H	22.05	22.36	23.00	23.30	24.54	19.36	19.67	20.32	20.62	21.86
12H	4H	21.36	21.79	22.29	22.73	23.90	18.65	19.08	19.58	20.02	21.19
	6H	21.82	22.17	22.78	23.13	24.32	19.20	19.55	20.16	20.51	21.69
	8H	21.99	22.30	22.94	23.25	24.48	19.39	19.70	20.35	20.65	21.88