

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: P854906

Luminaire Tested: SQ2-PR1-050U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854906
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-830-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

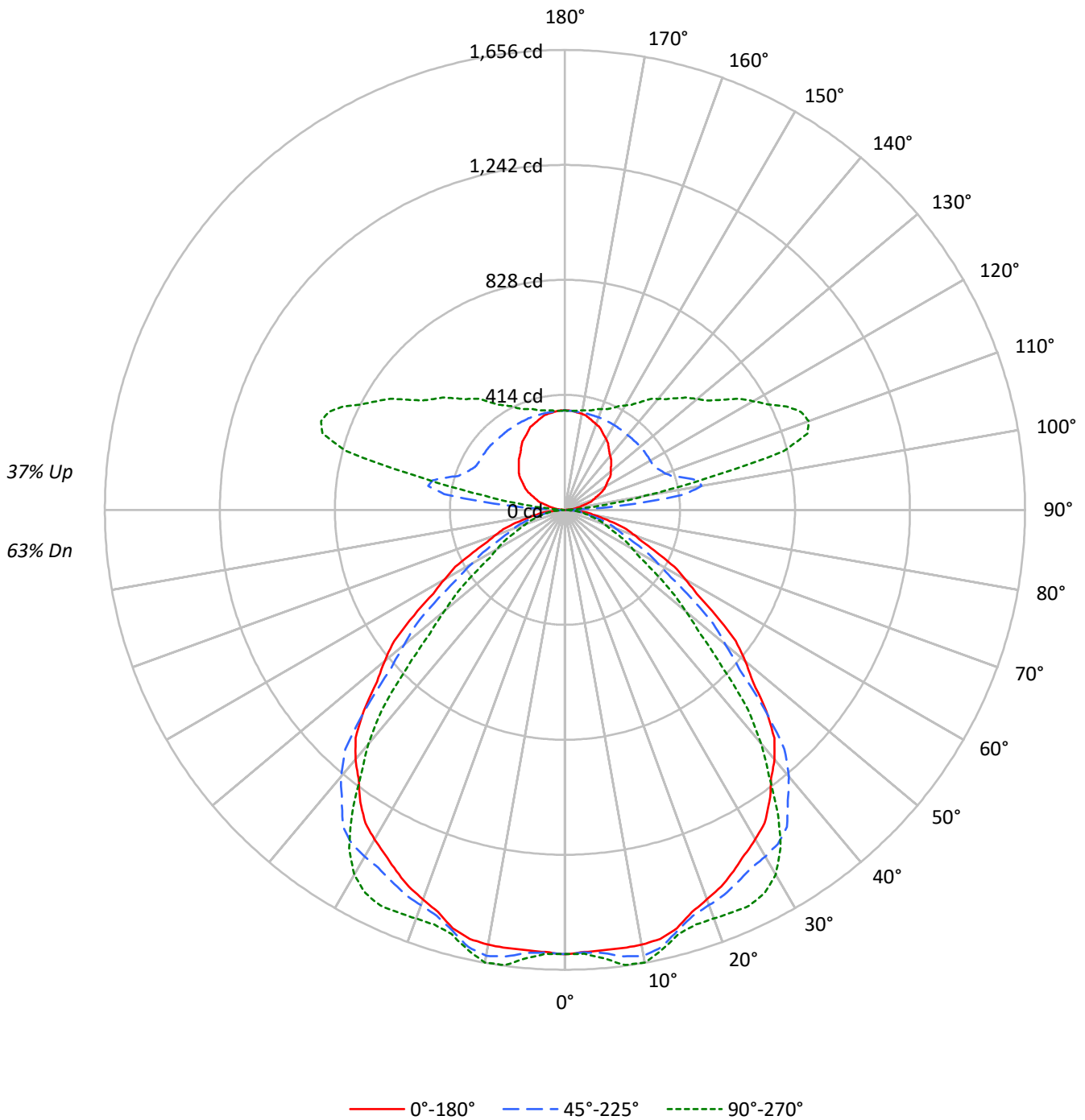
Lumens per Lamp: N/A
Luminaire Lumens: 6071.9 lumens
Efficiency: N/A
Efficacy: 146.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	25835	25835	25835
5°	25801	25960	26276
10°	26071	26742	27142
15°	26064	26200	26419
20°	25642	26036	26904
25°	25572	26297	28010
30°	25544	26880	28280
35°	25300	27457	26331
40°	24717	26435	23170
45°	23386	23201	18322
50°	21263	18969	14217
55°	18686	15612	11066
60°	16172	12484	9113
65°	13956	10346	7977
70°	12548	9163	7081
75°	11497	7935	6513
80°	10005	6369	6369
85°	7243	5743	3020

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25281 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	2.5
10°-20°	447.3	7.4
20°-30°	691.4	11.4
30°-40°	831.6	13.7
40°-50°	746.7	12.3
50°-60°	500.3	8.2
60°-70°	291.0	4.8
70°-80°	149.4	2.5
80°-90°	37.3	0.6
90°-100°	142.5	2.3
100°-110°	452.1	7.4
110°-120°	443.3	7.3
120°-130°	360.7	5.9
130°-140°	294.1	4.8
140°-150°	229.3	3.8
150°-160°	165.2	2.7
160°-170°	100.9	1.7
170°-180°	34.1	0.6
0°-30°	1293.2	21.3
0°-40°	2124.9	35.0
0°-60°	3371.8	55.5
0°-90°	3849.6	63.4
90°-120°	1037.9	17.1
90°-150°	1922.1	31.7
90°-180°	2222.0	36.6
0°-180°	6071.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1600	1600	1600	1600	1600	
5°	1592	1619	1602	1605	1621	152
15°	1559	1623	1567	1572	1580	438
25°	1435	1493	1476	1531	1572	662
35°	1284	1295	1393	1366	1336	800
45°	1024	1107	1016	857	802	784
55°	664	689	555	428	393	597
65°	365	373	271	220	209	370
75°	184	180	127	108	104	196
85°	39	31	31	21	16	48
90°	0	1	3	3	3	2
95°	19	58	259	96	62	22
105°	79	111	446	849	814	83
115°	141	167	360	748	880	139
125°	195	218	354	586	691	173
135°	235	258	352	504	568	182
145°	275	296	352	435	474	172
155°	313	324	353	389	404	144
165°	341	344	354	368	371	96
175°	357	356	357	359	358	34
180°	358	358	358	358	358	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1600.1	1600.1	1600.1	1600.1	1600.1
2.5°	1593.5	1612.6	1594.9	1596.2	1600.1
5°	1591.9	1619.0	1601.7	1605.3	1621.2
7.5°	1591.6	1630.2	1621.9	1631.9	1652.9
10°	1590.2	1636.5	1631.1	1633.2	1655.5
12.5°	1582.4	1636.4	1611.5	1609.5	1621.6
15°	1559.3	1623.0	1567.4	1572.5	1580.5
17.5°	1518.5	1585.2	1532.2	1550.2	1565.8
20°	1492.4	1557.8	1515.3	1538.7	1565.8
22.5°	1468.9	1534.3	1499.6	1532.4	1569.7
25°	1435.4	1492.7	1476.1	1530.9	1572.3
27.5°	1400.1	1433.9	1453.6	1527.0	1556.0
30°	1370.1	1392.4	1441.8	1505.7	1516.9
32.5°	1337.4	1350.9	1426.2	1459.4	1445.1
35°	1283.6	1294.8	1393.0	1366.2	1335.9
37.5°	1219.7	1242.7	1318.2	1241.1	1206.3
40°	1172.7	1211.0	1254.2	1139.2	1099.3
42.5°	1115.3	1176.5	1169.4	1022.9	974.0
45°	1024.2	1107.2	1016.1	856.7	802.4
47.5°	917.0	1002.1	853.1	710.6	660.0
50°	846.5	915.1	755.2	621.7	566.0
52.5°	774.7	824.2	671.7	538.4	487.6
55°	663.8	689.4	554.6	428.2	393.1
57.5°	562.0	578.3	453.0	345.9	320.0
60°	500.8	511.8	386.6	302.9	282.2
62.5°	444.6	453.3	333.1	266.5	250.9
65°	365.3	373.3	270.8	219.9	208.8
67.5°	302.4	306.5	222.8	182.7	172.2
70°	265.8	267.5	194.1	158.1	150.0
72.5°	233.3	231.0	166.7	137.3	131.8
75°	184.3	179.5	127.2	107.5	104.4
77.5°	137.7	132.5	89.4	82.9	82.9
80°	107.6	101.3	68.5	68.5	68.5
82.5°	80.3	71.3	52.8	52.8	51.6
85°	39.1	31.2	31.0	21.1	16.3
87.5°	10.4	10.6	4.6	4.6	4.6
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.0	79.9	26.6	18.7
95°	19.1	57.7	258.8	96.0	61.8
97.5°	35.6	74.7	438.5	274.0	168.1
100°	47.3	84.7	499.6	455.5	296.0
102.5°	59.9	95.5	488.9	669.0	512.1
105°	78.8	110.7	445.7	848.9	813.6
107.5°	97.7	127.2	404.4	867.7	915.1
110°	110.2	138.8	383.7	846.1	934.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.9	149.7	372.1	808.7	920.6
115°	140.7	167.1	360.1	748.0	880.1
117.5°	158.0	183.1	355.4	689.5	822.7
120°	168.8	193.0	354.5	653.4	782.2
122.5°	179.7	203.0	354.5	624.3	744.3
125°	194.7	217.8	354.5	586.5	690.9
127.5°	207.9	230.2	354.5	557.1	646.2
130°	216.1	239.1	354.5	539.8	620.0
132.5°	224.2	247.3	353.6	526.1	598.4
135°	235.2	258.4	352.2	504.5	568.4
137.5°	246.0	270.2	352.0	483.9	540.9
140°	253.3	277.5	351.1	469.3	521.0
142.5°	262.2	285.5	352.0	454.9	503.0
145°	274.6	295.6	352.2	435.3	473.7
147.5°	287.0	304.8	352.4	418.0	449.4
150°	296.0	310.2	353.3	407.9	433.3
152.5°	303.1	315.7	353.3	399.8	420.7
155°	312.8	323.8	353.3	388.6	404.0
157.5°	323.3	330.7	354.5	381.7	392.3
160°	328.6	335.2	354.5	377.2	386.0
162.5°	334.0	338.9	354.5	373.6	379.7
165°	341.0	344.3	354.5	368.0	371.4
167.5°	347.6	348.4	355.6	364.3	367.1
170°	351.1	351.1	355.6	362.4	363.5
172.5°	352.9	353.8	355.6	360.6	360.8
175°	356.7	355.7	356.7	359.0	357.8
177.5°	357.8	356.9	356.9	358.8	356.9
180°	357.8	357.8	357.8	357.8	357.8



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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	19.25	20.19	20.09	21.05	22.12	15.97	16.91	16.82	17.77	18.84
	3H	20.49	21.33	21.34	22.19	23.29	17.05	17.89	17.90	18.75	19.85
	4H	20.94	21.73	21.82	22.61	23.72	17.45	18.24	18.32	19.11	20.22
	6H	21.26	21.99	22.15	22.87	23.99	17.78	18.51	18.67	19.39	20.51
	8H	21.35	22.04	22.24	22.94	24.06	17.87	18.56	18.76	19.46	20.58
	12H	21.38	22.04	22.28	22.93	24.08	17.88	18.54	18.78	19.43	20.58
4H	2H	19.34	20.13	20.21	21.00	22.11	16.55	17.34	17.43	18.22	19.33
	3H	20.82	21.47	21.70	22.38	23.50	17.83	18.48	18.71	19.39	20.51
	4H	21.41	22.01	22.31	22.91	24.06	18.34	18.93	19.23	19.83	20.98
	6H	21.87	22.38	22.78	23.31	24.46	18.78	19.29	19.69	20.21	21.37
	8H	22.00	22.48	22.92	23.40	24.57	18.90	19.38	19.82	20.30	21.46
	12H	22.06	22.49	23.00	23.43	24.60	18.92	19.35	19.86	20.29	21.46
8H	4H	21.45	21.92	22.36	22.84	24.01	18.65	19.13	19.56	20.05	21.21
	6H	22.00	22.39	22.94	23.36	24.52	19.18	19.58	20.13	20.54	21.71
	8H	22.20	22.54	23.15	23.50	24.68	19.37	19.72	20.32	20.67	21.85
	12H	22.30	22.61	23.26	23.56	24.79	19.44	19.74	20.39	20.69	21.92
12H	4H	21.41	21.84	22.34	22.78	23.95	18.67	19.10	19.60	20.04	21.21
	6H	21.98	22.33	22.94	23.29	24.47	19.24	19.59	20.20	20.55	21.73
	8H	22.20	22.51	23.15	23.45	24.69	19.46	19.76	20.41	20.71	21.94