

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: P855113

Luminaire Tested: SQ2-PR1-050U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855113
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-835-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

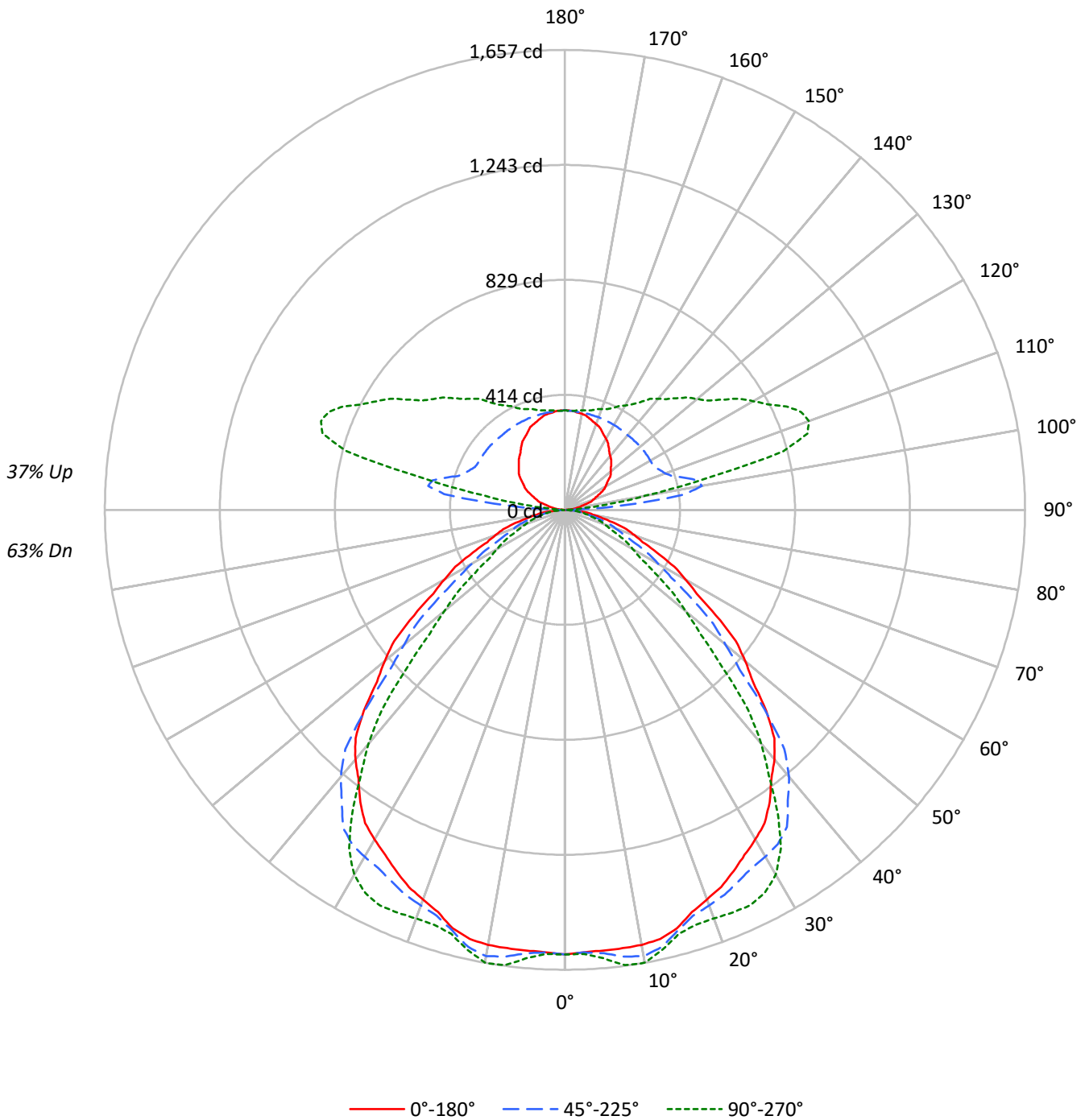
Lumens per Lamp: N/A
Luminaire Lumens: 6077.4 lumens
Efficiency: N/A
Efficacy: 146.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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				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°	25858	25858	25858
5°	25825	25982	26300
10°	26096	26765	27166
15°	26088	26223	26444
20°	25667	26060	26928
25°	25593	26320	28035
30°	25568	26905	28305
35°	25324	27480	26355
40°	24740	26460	23191
45°	23409	23222	18338
50°	21283	18985	14230
55°	18702	15626	11077
60°	16185	12494	9122
65°	13967	10353	7985
70°	12562	9172	7091
75°	11510	7941	6519
80°	10014	6378	6378
85°	7262	5743	3020

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25304 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.7	2.5
10°-20°	447.7	7.4
20°-30°	692.0	11.4
30°-40°	832.4	13.7
40°-50°	747.4	12.3
50°-60°	500.7	8.2
60°-70°	291.3	4.8
70°-80°	149.6	2.5
80°-90°	37.4	0.6
90°-100°	142.7	2.3
100°-110°	452.5	7.4
110°-120°	443.7	7.3
120°-130°	361.1	5.9
130°-140°	294.4	4.8
140°-150°	229.5	3.8
150°-160°	165.4	2.7
160°-170°	101.0	1.7
170°-180°	34.1	0.6
0°-30°	1294.4	21.3
0°-40°	2126.8	35.0
0°-60°	3374.9	55.5
0°-90°	3853.1	63.4
90°-120°	1038.9	17.1
90°-150°	1923.8	31.7
90°-180°	2224.0	36.6
0°-180°	6077.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1593	1620	1603	1607	1623	152
15°	1561	1624	1569	1574	1582	438
25°	1437	1494	1477	1532	1574	663
35°	1285	1296	1394	1367	1337	801
45°	1025	1108	1017	858	803	784
55°	664	690	555	429	394	597
65°	366	374	271	220	209	370
75°	184	180	127	108	104	196
85°	39	31	31	21	16	49
90°	0	1	3	3	3	2
95°	19	58	259	96	62	22
105°	79	111	446	850	814	83
115°	141	167	360	749	881	139
125°	195	218	355	587	692	173
135°	235	259	352	505	569	182
145°	275	296	352	436	474	172
155°	313	324	354	389	404	144
165°	341	345	355	368	372	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°	1601.5	1601.5	1601.5	1601.5	1601.5
2.5°	1595.0	1614.1	1596.3	1597.7	1601.5
5°	1593.4	1620.4	1603.1	1606.7	1622.7
7.5°	1593.0	1631.6	1623.4	1633.3	1654.4
10°	1591.7	1638.0	1632.5	1634.7	1657.0
12.5°	1583.9	1637.9	1613.0	1610.9	1623.0
15°	1560.7	1624.5	1568.8	1573.9	1582.0
17.5°	1519.8	1586.6	1533.6	1551.6	1567.2
20°	1493.8	1559.2	1516.7	1540.1	1567.2
22.5°	1470.3	1535.7	1500.9	1533.7	1571.1
25°	1436.6	1494.0	1477.4	1532.3	1573.7
27.5°	1401.3	1435.2	1454.9	1528.4	1557.4
30°	1371.4	1393.6	1443.1	1507.0	1518.2
32.5°	1338.6	1352.1	1427.5	1460.8	1446.4
35°	1284.8	1296.0	1394.2	1367.4	1337.1
37.5°	1220.8	1243.8	1319.4	1242.2	1207.4
40°	1173.8	1212.1	1255.4	1140.3	1100.3
42.5°	1116.3	1177.6	1170.5	1023.8	974.9
45°	1025.2	1108.2	1017.0	857.5	803.1
47.5°	917.8	1003.0	853.8	711.3	660.6
50°	847.3	916.0	755.8	622.3	566.5
52.5°	775.4	825.0	672.3	538.9	488.1
55°	664.4	690.0	555.1	428.6	393.5
57.5°	562.6	578.8	453.5	346.2	320.3
60°	501.2	512.3	386.9	303.2	282.5
62.5°	445.0	453.7	333.4	266.7	251.1
65°	365.6	373.7	271.0	220.1	209.0
67.5°	302.7	306.8	223.1	182.9	172.4
70°	266.1	267.8	194.3	158.2	150.2
72.5°	233.5	231.2	166.8	137.4	132.0
75°	184.5	179.7	127.3	107.6	104.5
77.5°	137.8	132.6	89.5	83.0	83.0
80°	107.7	101.4	68.6	68.6	68.6
82.5°	80.3	71.4	52.8	52.8	51.6
85°	39.2	31.2	31.0	21.2	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	80.0	26.6	18.7
95°	19.1	57.7	259.0	96.1	61.9
97.5°	35.6	74.8	438.9	274.2	168.3
100°	47.3	84.8	500.1	455.9	296.3
102.5°	60.0	95.6	489.3	669.6	512.5
105°	78.9	110.8	446.1	849.7	814.3
107.5°	97.8	127.3	404.8	868.4	916.0
110°	110.3	139.0	384.1	846.8	934.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.0	149.8	372.4	809.5	921.4
115°	140.8	167.3	360.4	748.7	880.9
117.5°	158.1	183.2	355.7	690.1	823.4
120°	169.0	193.2	354.8	654.0	782.9
122.5°	179.8	203.1	354.8	624.9	745.0
125°	194.9	218.0	354.8	587.0	691.6
127.5°	208.1	230.4	354.8	557.6	646.7
130°	216.3	239.3	354.8	540.3	620.6
132.5°	224.4	247.5	353.9	526.6	599.0
135°	235.4	258.6	352.5	504.9	568.9
137.5°	246.3	270.5	352.3	484.4	541.4
140°	253.5	277.7	351.4	469.8	521.5
142.5°	262.4	285.7	352.3	455.3	503.5
145°	274.9	295.8	352.5	435.7	474.2
147.5°	287.2	305.1	352.7	418.4	449.8
150°	296.3	310.5	353.6	408.3	433.7
152.5°	303.4	316.0	353.6	400.2	421.1
155°	313.1	324.1	353.6	389.0	404.3
157.5°	323.5	331.0	354.8	382.0	392.7
160°	328.9	335.5	354.8	377.5	386.4
162.5°	334.3	339.2	354.8	373.9	380.0
165°	341.3	344.6	354.8	368.4	371.8
167.5°	347.9	348.7	355.9	364.6	367.5
170°	351.4	351.4	355.9	362.7	363.8
172.5°	353.2	354.1	355.9	360.9	361.1
175°	357.0	356.0	357.0	359.3	358.2
177.5°	358.2	357.3	357.3	359.1	357.3
180°	358.2	358.2	358.2	358.2	358.2



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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	15.98	16.92	16.82	17.78	18.85
	3H	20.49	21.33	21.35	22.20	23.30	17.05	17.89	17.91	18.76	19.85
	4H	20.95	21.74	21.82	22.61	23.72	17.45	18.24	18.33	19.12	20.23
	6H	21.27	22.00	22.15	22.88	24.00	17.79	18.52	18.67	19.40	20.52
	8H	21.35	22.04	22.25	22.94	24.06	17.88	18.57	18.77	19.47	20.59
	12H	21.38	22.04	22.28	22.94	24.08	17.89	18.55	18.78	19.44	20.58
4H	2H	19.34	20.13	20.22	21.00	22.11	16.56	17.35	17.43	18.22	19.33
	3H	20.82	21.47	21.71	22.38	23.50	17.83	18.48	18.72	19.39	20.51
	4H	21.42	22.01	22.32	22.92	24.06	18.34	18.93	19.24	19.84	20.99
	6H	21.87	22.39	22.79	23.31	24.47	18.78	19.29	19.69	20.22	21.37
	8H	22.01	22.49	22.92	23.41	24.57	18.90	19.38	19.82	20.30	21.47
	12H	22.07	22.50	23.00	23.43	24.60	18.93	19.36	19.86	20.30	21.47
8H	4H	21.45	21.93	22.37	22.85	24.01	18.65	19.13	19.57	20.05	21.21
	6H	22.00	22.40	22.94	23.36	24.52	19.19	19.58	20.13	20.55	21.71
	8H	22.20	22.55	23.15	23.50	24.68	19.37	19.72	20.33	20.68	21.86
	12H	22.31	22.62	23.26	23.56	24.79	19.44	19.75	20.39	20.69	21.93
12H	4H	21.41	21.84	22.35	22.78	23.95	18.67	19.10	19.61	20.04	21.21
	6H	21.99	22.34	22.94	23.29	24.47	19.25	19.60	20.20	20.55	21.73
	8H	22.20	22.51	23.16	23.46	24.69	19.46	19.77	20.41	20.71	21.95