

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: P855093

Luminaire Tested: SQ2-PR1-150U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855093
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-150U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

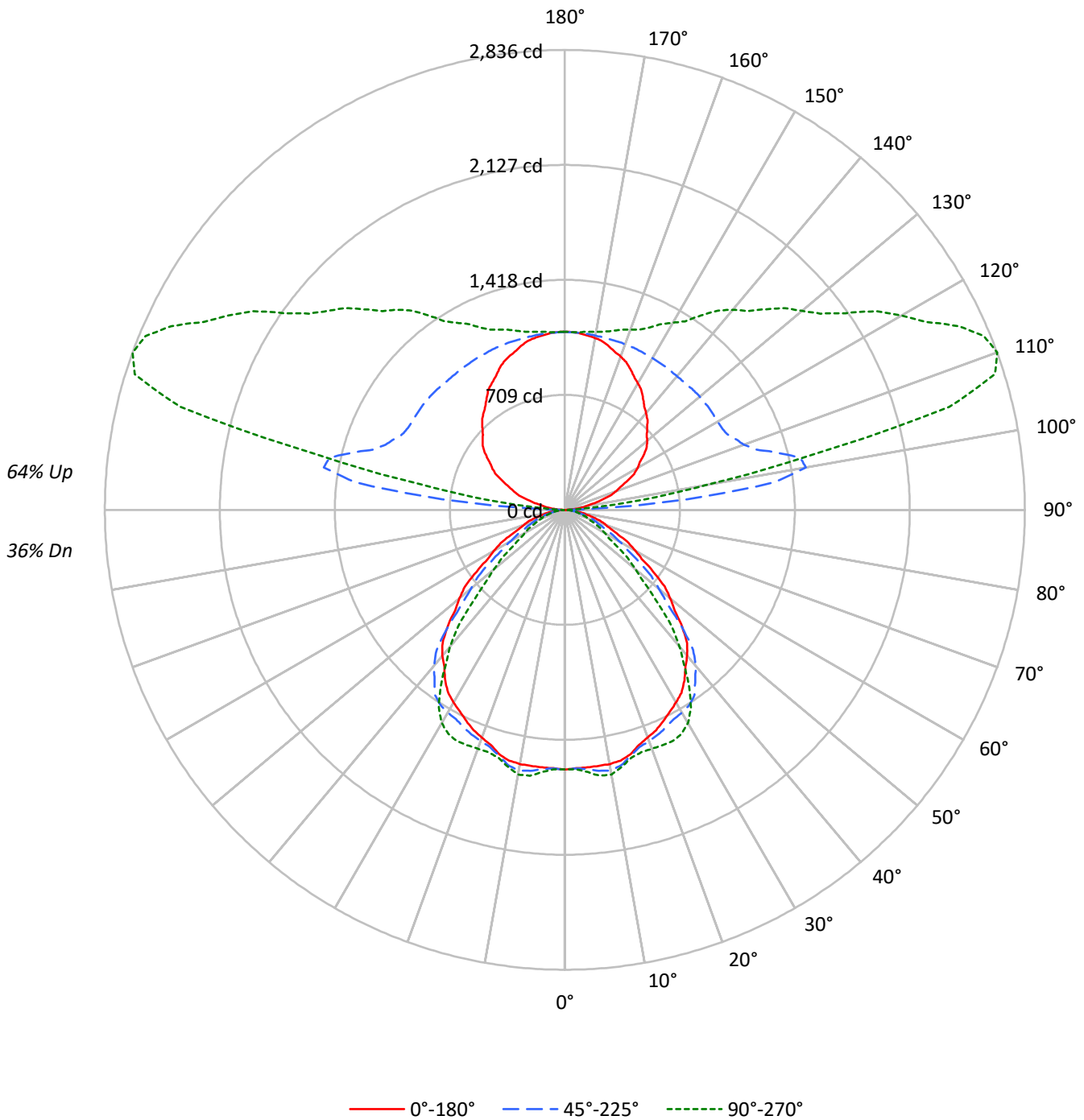
Lumens per Lamp: N/A
Luminaire Lumens: 10626.6 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 83.3
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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	36
1	95	91	87	84	86	83	80	77	67	65	63	52	51	50	39	38	38	31
2	87	80	74	69	79	73	68	64	59	56	53	47	44	42	35	34	32	27
3	80	71	64	58	72	64	58	54	53	48	45	42	39	36	31	30	28	23
4	73	63	55	50	66	57	51	46	47	42	38	37	34	31	28	26	24	20
5	67	56	48	43	61	51	44	39	42	37	33	34	30	27	26	23	21	18
6	62	50	42	37	56	46	39	34	38	33	29	30	27	24	23	21	19	16
7	57	45	38	32	52	42	35	30	34	29	26	28	24	21	21	19	17	14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	20	17	15	13
9	49	37	30	25	45	34	28	24	29	24	20	23	20	17	18	16	14	12
10	46	34	27	23	42	32	25	21	26	22	18	21	18	15	17	14	13	11

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	1.5
10°-20°	447.7	4.2
20°-30°	692.0	6.5
30°-40°	832.4	7.8
40°-50°	747.4	7.0
50°-60°	500.7	4.7
60°-70°	291.3	2.7
70°-80°	149.6	1.4
80°-90°	38.1	0.4
90°-100°	418.1	3.9
100°-110°	1369.1	12.9
110°-120°	1353.5	12.7
120°-130°	1106.4	10.4
130°-140°	902.9	8.5
140°-150°	702.7	6.6
150°-160°	505.9	4.8
160°-170°	309.5	2.9
170°-180°	104.6	1.0
0°-30°	1294.4	12.2
0°-40°	2126.8	20.0
0°-60°	3374.9	31.8
0°-90°	3853.9	36.3
90°-120°	3140.7	29.6
90°-150°	5852.7	55.1
90°-180°	6773.0	63.7
0°-180°	10626.6	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°	1	3	9	8	9	4
95°	59	170	760	271	176	67
105°	238	339	1359	2582	2453	251
115°	429	512	1104	2281	2678	423
125°	597	665	1088	1799	2113	531
135°	718	794	1079	1552	1749	556
145°	840	902	1077	1335	1463	526
155°	958	989	1084	1194	1240	441
165°	1045	1055	1088	1130	1142	295
175°	1093	1093	1094	1102	1100	104
180°	1097	1097	1097	1097	1097	



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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°	10.6	11.1	5.8	5.5	5.8
90°	1.1	3.3	9.1	7.9	9.1
92.5°	19.1	69.9	214.7	69.8	55.9
95°	58.6	170.0	760.1	270.8	176.0
97.5°	106.5	224.2	1304.1	788.9	489.0
100°	139.9	252.4	1509.0	1347.5	893.2
102.5°	177.8	287.6	1486.4	1985.5	1539.2
105°	238.0	339.4	1358.9	2581.9	2452.9
107.5°	297.3	390.3	1234.6	2637.7	2779.5
110°	336.1	426.5	1175.1	2572.7	2836.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	373.1	460.8	1139.0	2459.9	2797.5
115°	428.6	512.3	1104.1	2281.4	2678.4
117.5°	482.4	560.7	1090.8	2106.1	2509.2
120°	517.6	591.5	1087.2	2004.0	2396.5
122.5°	549.2	621.3	1087.2	1915.8	2280.1
125°	596.6	665.0	1088.3	1799.1	2113.4
127.5°	636.8	706.4	1087.0	1713.2	1986.6
130°	662.0	732.5	1086.1	1661.2	1908.2
132.5°	684.5	756.9	1083.3	1616.5	1840.5
135°	718.4	794.4	1079.3	1551.7	1749.1
137.5°	754.0	829.4	1076.8	1484.4	1662.8
140°	779.3	852.0	1075.9	1441.7	1610.5
142.5°	804.5	873.0	1075.9	1396.2	1549.1
145°	840.1	901.9	1077.0	1334.8	1462.7
147.5°	877.6	929.0	1078.6	1281.3	1377.9
150°	901.0	946.3	1080.4	1250.3	1331.9
152.5°	924.6	964.4	1081.3	1224.7	1292.1
155°	957.5	989.4	1083.8	1194.2	1240.5
157.5°	987.0	1010.1	1086.3	1170.3	1203.8
160°	1005.9	1024.7	1087.2	1156.6	1183.0
162.5°	1022.2	1037.4	1087.2	1145.6	1164.9
165°	1045.4	1055.4	1088.3	1130.3	1142.4
167.5°	1065.0	1069.9	1089.7	1118.4	1125.1
170°	1075.9	1078.1	1090.6	1112.0	1114.2
172.5°	1084.0	1085.4	1093.3	1107.4	1107.9
175°	1092.8	1092.8	1094.0	1101.8	1099.5
177.5°	1097.3	1096.5	1095.5	1100.9	1097.3
180°	1097.3	1097.3	1097.3	1097.3	1097.3



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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	16.64	17.37	17.72	18.44	19.89	13.37	14.09	14.44	15.16	16.62
	3H	17.87	18.51	18.95	19.59	21.07	14.42	15.07	15.51	16.15	17.62
	4H	18.31	18.92	19.41	20.00	21.49	14.82	15.43	15.91	16.51	17.99
	6H	18.62	19.18	19.72	20.27	21.76	15.14	15.70	16.24	16.79	18.28
	8H	18.70	19.23	19.81	20.33	21.82	15.22	15.76	16.33	16.86	18.34
	12H	18.72	19.23	19.84	20.32	21.83	15.23	15.73	16.34	16.83	18.34
4H	2H	16.70	17.32	17.80	18.40	19.88	13.92	14.53	15.02	15.61	17.09
	3H	18.16	18.67	19.27	19.78	21.27	15.17	15.68	16.28	16.79	18.28
	4H	18.75	19.22	19.86	20.32	21.83	15.67	16.14	16.79	17.24	18.75
	6H	19.20	19.60	20.32	20.72	22.23	16.10	16.50	17.22	17.62	19.13
	8H	19.33	19.70	20.45	20.81	22.34	16.22	16.59	17.34	17.71	19.23
	12H	19.38	19.71	20.51	20.84	22.37	16.24	16.57	17.37	17.70	19.23
8H	4H	18.77	19.14	19.89	20.25	21.78	15.97	16.34	17.09	17.45	18.98
	6H	19.31	19.62	20.45	20.77	22.30	16.50	16.81	17.64	17.96	19.48
	8H	19.51	19.78	20.66	20.91	22.46	16.69	16.95	17.83	18.09	19.63
	12H	19.61	19.85	20.76	20.98	22.55	16.74	16.98	17.89	18.11	19.69
12H	4H	18.72	19.06	19.86	20.18	21.71	15.98	16.32	17.12	17.44	18.97
	6H	19.30	19.57	20.45	20.70	22.24	16.56	16.83	17.71	17.96	19.51
	8H	19.51	19.74	20.65	20.87	22.45	16.76	17.00	17.91	18.13	19.71