

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: P855300

Luminaire Tested: SQ2-PR1-150U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855300
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-840-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

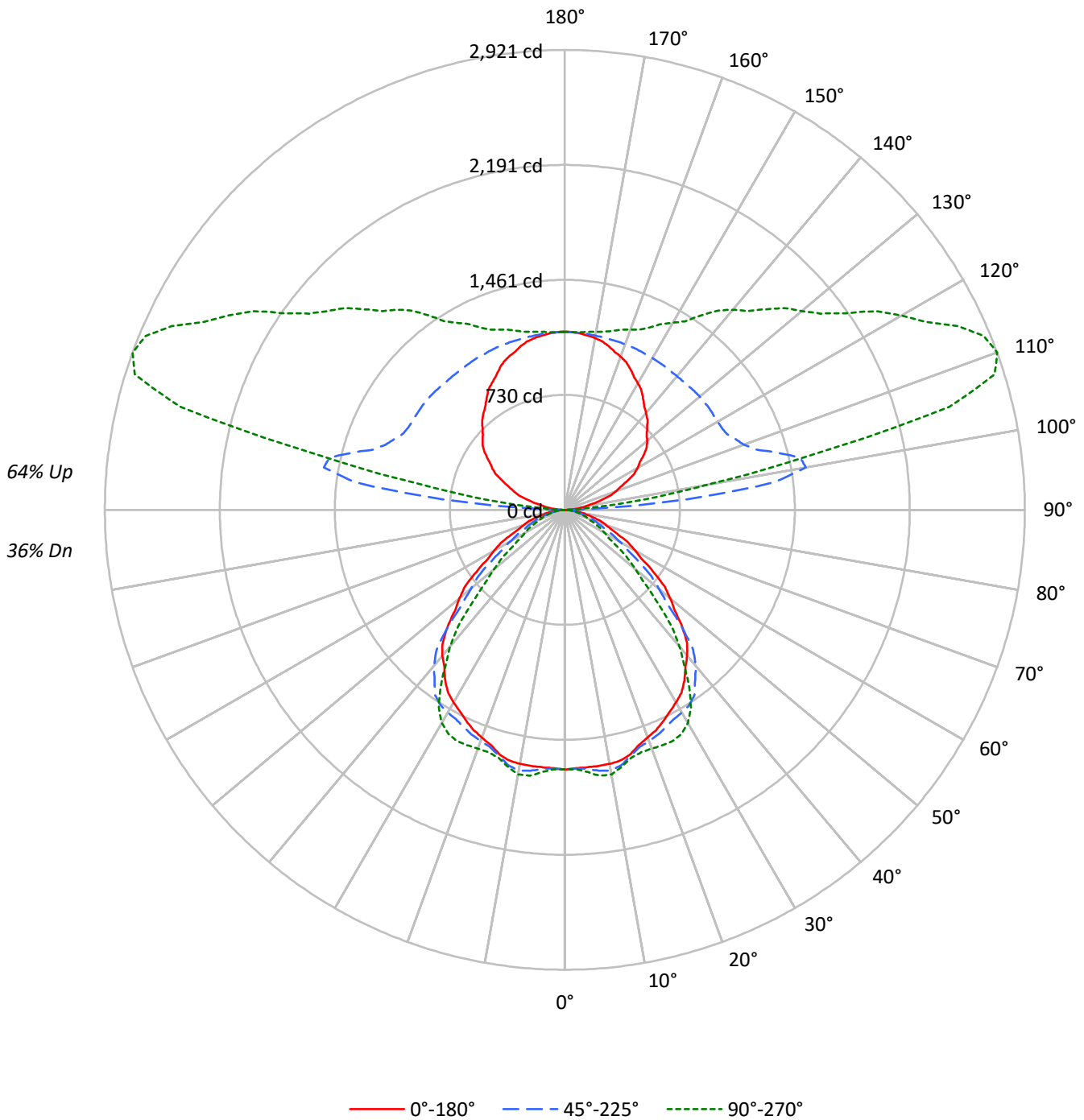
Lumens per Lamp: N/A
Luminaire Lumens: 10943.4 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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°	26629	26629	26629
5°	26595	26757	27084
10°	26873	27563	27976
15°	26865	27005	27231
20°	26431	26837	27732
25°	26357	27104	28871
30°	26329	27706	29149
35°	26079	28300	27139
40°	25478	27248	23882
45°	24106	23914	18886
50°	21916	19552	14654
55°	19260	16090	11406
60°	16669	12868	9394
65°	14384	10663	8222
70°	12935	9446	7298
75°	11853	8178	6712
80°	10312	6564	6564
85°	7466	5910	3112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 26060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.3	1.5
10°-20°	461.0	4.2
20°-30°	712.7	6.5
30°-40°	857.2	7.8
40°-50°	769.7	7.0
50°-60°	515.6	4.7
60°-70°	299.9	2.7
70°-80°	154.0	1.4
80°-90°	39.2	0.4
90°-100°	430.6	3.9
100°-110°	1409.9	12.9
110°-120°	1393.9	12.7
120°-130°	1139.4	10.4
130°-140°	929.8	8.5
140°-150°	723.6	6.6
150°-160°	521.0	4.8
160°-170°	318.8	2.9
170°-180°	107.7	1.0
0°-30°	1333.0	12.2
0°-40°	2190.2	20.0
0°-60°	3475.5	31.8
0°-90°	3968.7	36.3
90°-120°	3234.3	29.6
90°-150°	6027.2	55.1
90°-180°	6975.0	63.7
0°-180°	10943.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1641	1669	1651	1655	1671	157
15°	1607	1673	1616	1621	1629	451
25°	1480	1539	1521	1578	1621	682
35°	1323	1335	1436	1408	1377	825
45°	1056	1141	1047	883	827	808
55°	684	710	572	441	405	615
65°	376	385	279	227	215	381
75°	190	185	131	111	108	202
85°	40	32	32	22	17	50
90°	1	3	9	8	9	5
95°	60	175	783	279	181	69
105°	245	350	1399	2659	2526	258
115°	441	528	1137	2349	2758	436
125°	614	685	1121	1853	2176	547
135°	740	818	1111	1598	1801	572
145°	865	929	1109	1375	1506	542
155°	986	1019	1116	1230	1278	454
165°	1077	1087	1121	1164	1176	303
175°	1125	1125	1127	1135	1132	107
180°	1130	1130	1130	1130	1130	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1642.5	1662.2	1643.9	1645.3	1649.3
5°	1640.9	1668.7	1650.9	1654.6	1671.1
7.5°	1640.5	1680.3	1671.8	1682.0	1703.7
10°	1639.1	1686.8	1681.2	1683.4	1706.4
12.5°	1631.1	1686.7	1661.0	1658.9	1671.4
15°	1607.2	1672.9	1615.6	1620.8	1629.1
17.5°	1565.1	1633.9	1579.4	1597.9	1614.0
20°	1538.3	1605.7	1561.9	1586.0	1614.0
22.5°	1514.1	1581.4	1545.7	1579.5	1617.9
25°	1479.5	1538.6	1521.4	1578.0	1620.6
27.5°	1443.1	1478.0	1498.2	1574.0	1603.8
30°	1412.2	1435.2	1486.1	1552.0	1563.5
32.5°	1378.6	1392.4	1470.0	1504.3	1489.5
35°	1323.1	1334.6	1435.8	1408.2	1376.9
37.5°	1257.2	1280.9	1358.7	1279.3	1243.4
40°	1208.8	1248.3	1292.8	1174.3	1133.1
42.5°	1149.6	1212.7	1205.4	1054.3	1004.0
45°	1055.7	1141.3	1047.3	883.0	827.1
47.5°	945.1	1032.9	879.3	732.5	680.2
50°	872.5	943.3	778.4	640.9	583.4
52.5°	798.5	849.6	692.4	555.0	502.6
55°	684.2	710.5	571.6	441.3	405.2
57.5°	579.3	596.1	467.0	356.5	329.8
60°	516.2	527.6	398.5	312.2	290.9
62.5°	458.2	467.2	343.3	274.7	258.6
65°	376.5	384.8	279.1	226.7	215.2
67.5°	311.7	315.9	229.7	188.3	177.5
70°	274.0	275.7	200.1	162.9	154.6
72.5°	240.4	238.1	171.8	141.5	135.9
75°	190.0	185.1	131.1	110.8	107.6
77.5°	141.9	136.6	92.2	85.4	85.4
80°	110.9	104.4	70.6	70.6	70.6
82.5°	82.7	73.5	54.4	54.4	53.1
85°	40.3	32.2	31.9	21.8	16.8
87.5°	11.0	11.4	5.9	5.7	5.9
90°	1.2	3.4	9.3	8.2	9.3
92.5°	19.7	72.0	221.1	71.9	57.6
95°	60.4	175.0	782.8	278.9	181.2
97.5°	109.7	230.9	1343.0	812.4	503.6
100°	144.0	259.9	1553.9	1387.6	919.9
102.5°	183.1	296.1	1530.8	2044.7	1585.1
105°	245.1	349.5	1399.4	2658.9	2526.0
107.5°	306.2	401.9	1271.5	2716.3	2862.3
110°	346.1	439.2	1210.2	2649.4	2920.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	384.2	474.6	1173.0	2533.2	2880.9
115°	441.3	527.6	1137.0	2349.4	2758.3
117.5°	496.8	577.5	1123.3	2168.9	2584.0
120°	533.1	609.2	1119.6	2063.7	2468.0
122.5°	565.6	639.8	1119.6	1972.9	2348.1
125°	614.4	684.8	1120.8	1852.8	2176.4
127.5°	655.8	727.4	1119.4	1764.3	2045.9
130°	681.8	754.4	1118.4	1710.7	1965.1
132.5°	705.0	779.4	1115.6	1664.7	1895.4
135°	739.8	818.1	1111.4	1598.0	1801.2
137.5°	776.5	854.1	1108.9	1528.7	1712.3
140°	802.5	877.4	1107.9	1484.7	1658.5
142.5°	828.5	899.0	1107.9	1437.9	1595.3
145°	865.2	928.8	1109.1	1374.6	1506.3
147.5°	903.8	956.7	1110.7	1319.5	1419.0
150°	927.9	974.5	1112.6	1287.5	1371.6
152.5°	952.1	993.2	1113.5	1261.2	1330.7
155°	986.0	1018.9	1116.1	1229.8	1277.5
157.5°	1016.5	1040.2	1118.7	1205.1	1239.6
160°	1035.9	1055.3	1119.6	1191.0	1218.3
162.5°	1052.7	1068.3	1119.6	1179.7	1199.7
165°	1076.6	1086.9	1120.8	1164.0	1176.5
167.5°	1096.8	1101.8	1122.2	1151.8	1158.6
170°	1107.9	1110.3	1123.1	1145.1	1147.5
172.5°	1116.3	1117.7	1125.9	1140.5	1140.9
175°	1125.4	1125.4	1126.6	1134.6	1132.3
177.5°	1130.0	1129.2	1128.1	1133.7	1130.0
180°	1130.0	1130.0	1130.0	1130.0	1130.0



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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	16.75	17.47	17.82	18.54	20.00	13.47	14.19	14.54	15.26	16.72
	3H	17.97	18.61	19.05	19.69	21.17	14.52	15.17	15.61	16.25	17.73
	4H	18.41	19.02	19.51	20.11	21.59	14.92	15.53	16.01	16.61	18.09
	6H	18.72	19.29	19.83	20.37	21.86	15.24	15.80	16.34	16.89	18.38
	8H	18.80	19.34	19.91	20.43	21.92	15.32	15.86	16.43	16.96	18.44
	12H	18.83	19.33	19.94	20.43	21.94	15.33	15.83	16.44	16.93	18.44
4H	2H	16.81	17.42	17.91	18.50	19.98	14.02	14.63	15.12	15.71	17.20
	3H	18.26	18.77	19.37	19.88	21.37	15.27	15.78	16.38	16.89	18.38
	4H	18.85	19.32	19.97	20.42	21.93	15.78	16.24	16.89	17.34	18.85
	6H	19.30	19.70	20.42	20.82	22.33	16.20	16.60	17.32	17.72	19.23
	8H	19.43	19.80	20.55	20.91	22.44	16.32	16.70	17.44	17.81	19.33
	12H	19.48	19.81	20.61	20.94	22.47	16.34	16.68	17.47	17.80	19.33
8H	4H	18.87	19.24	19.99	20.36	21.88	16.07	16.44	17.19	17.56	19.08
	6H	19.42	19.72	20.56	20.88	22.40	16.60	16.91	17.74	18.06	19.58
	8H	19.61	19.88	20.76	21.02	22.56	16.79	17.06	17.93	18.19	19.73
	12H	19.71	19.95	20.86	21.08	22.66	16.84	17.08	17.99	18.21	19.79
12H	4H	18.82	19.16	19.96	20.28	21.81	16.08	16.42	17.22	17.54	19.07
	6H	19.40	19.67	20.55	20.80	22.35	16.66	16.93	17.81	18.07	19.61
	8H	19.61	19.84	20.76	20.98	22.55	16.86	17.10	18.01	18.23	19.81