

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: P855304

Luminaire Tested: SQ2-PR1-125U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855304
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-125U-075D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

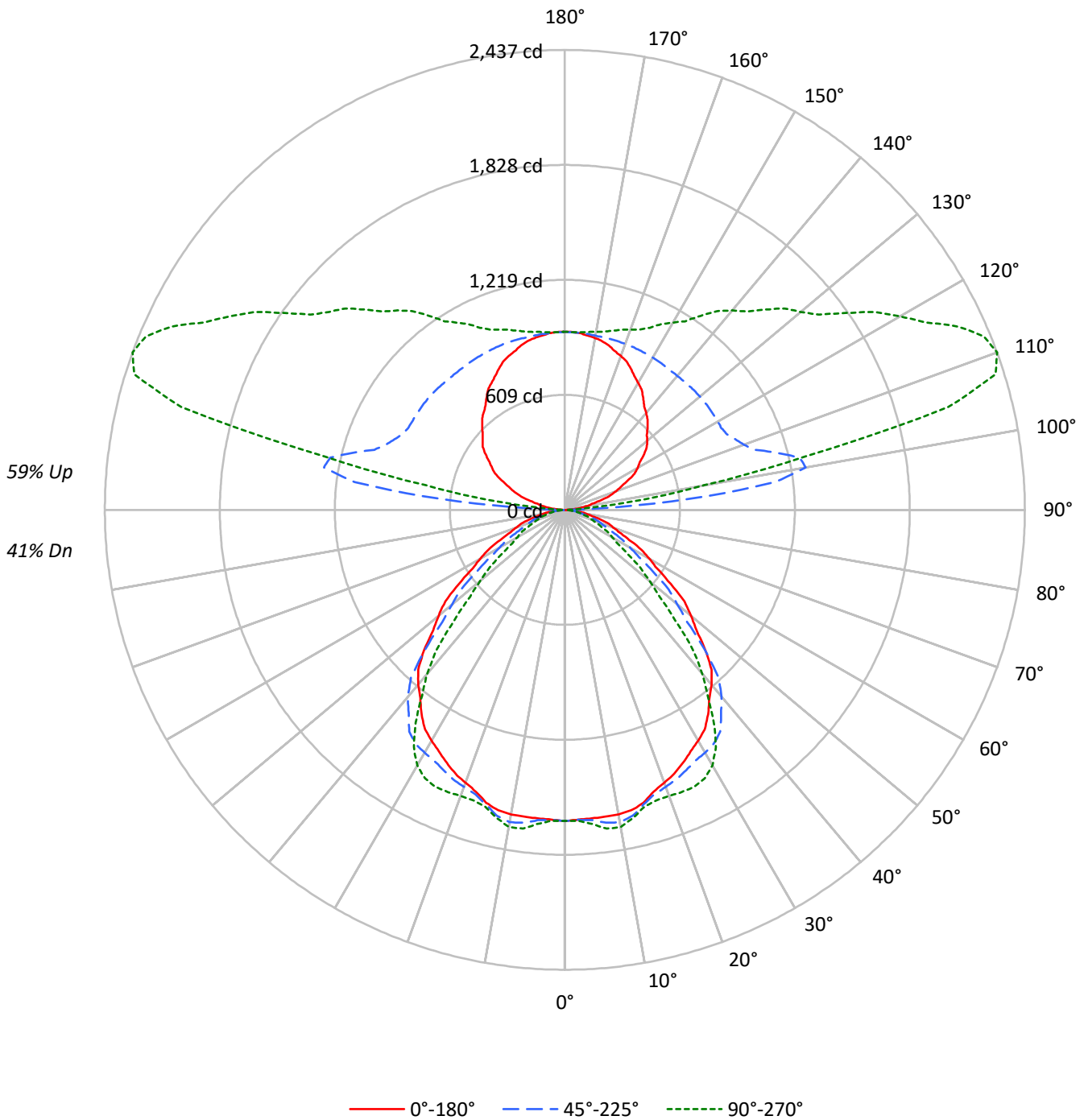
Lumens per Lamp: N/A
Luminaire Lumens: 9786.9 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.6
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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	41
1	96	92	88	85	88	84	81	78	69	67	65	55	54	53	43	42	41	35
2	88	81	75	70	80	74	69	65	61	58	55	49	47	45	38	37	35	30
3	81	72	65	59	73	66	60	55	54	50	46	44	41	38	34	32	31	26
4	74	64	56	50	67	58	52	47	49	44	40	39	36	33	31	29	27	23
5	68	57	49	43	62	52	45	40	44	38	35	35	32	29	28	25	23	20
6	63	51	43	38	57	47	40	35	39	34	30	32	28	26	25	23	21	18
7	58	46	38	33	53	42	36	31	36	31	27	29	25	23	23	21	19	16
8	54	42	34	29	49	39	32	27	33	27	24	27	23	20	21	19	17	14
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15	13
10	47	35	28	23	43	32	26	22	27	23	19	23	19	16	18	16	14	12

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	1.6
10°-20°	461.0	4.7
20°-30°	712.7	7.3
30°-40°	857.2	8.8
40°-50°	769.7	7.9
50°-60°	515.6	5.3
60°-70°	299.9	3.1
70°-80°	154.0	1.6
80°-90°	39.1	0.4
90°-100°	360.7	3.7
100°-110°	1174.5	12.0
110°-120°	1161.7	11.9
120°-130°	949.4	9.7
130°-140°	775.9	7.9
140°-150°	604.4	6.2
150°-160°	435.6	4.5
160°-170°	266.3	2.7
170°-180°	89.8	0.9
0°-30°	1333.0	13.6
0°-40°	2190.2	22.4
0°-60°	3475.5	35.5
0°-90°	3968.5	40.5
90°-120°	2696.9	27.6
90°-150°	5026.6	51.4
90°-180°	5818.0	59.4
0°-180°	9786.9	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°	0	3	8	7	7	4
95°	49	148	661	236	145	57
105°	200	288	1163	2222	2104	213
115°	369	440	948	1953	2298	365
125°	513	572	935	1542	1818	456
135°	619	684	930	1331	1501	479
145°	724	777	928	1146	1255	453
155°	826	853	934	1026	1065	380
165°	901	909	936	971	982	254
175°	940	940	940	946	944	89
180°	943	943	943	943	943	



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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°	10.7	11.4	5.7	5.5	5.5
90°	0.0	3.4	8.2	7.0	7.0
92.5°	16.7	60.0	191.8	63.3	48.7
95°	48.7	148.5	661.1	235.8	145.0
97.5°	91.6	193.2	1122.2	683.4	417.1
100°	119.5	219.3	1295.7	1155.4	749.4
102.5°	151.0	247.2	1274.4	1709.3	1299.7
105°	199.5	288.0	1163.4	2222.1	2104.1
107.5°	252.0	335.2	1058.1	2266.6	2391.6
110°	290.0	365.9	1008.0	2211.3	2437.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	321.5	396.6	976.5	2111.7	2402.7
115°	368.8	440.3	947.7	1953.1	2297.8
117.5°	417.6	482.0	936.5	1807.8	2151.0
120°	445.4	508.9	933.7	1718.5	2050.8
122.5°	472.3	534.9	934.7	1641.0	1950.5
125°	512.7	571.6	934.9	1542.1	1817.7
127.5°	547.3	607.6	934.7	1467.9	1697.8
130°	569.5	630.8	933.7	1425.6	1630.9
132.5°	589.0	653.0	932.8	1386.4	1578.9
135°	619.4	684.1	930.3	1330.9	1501.0
137.5°	649.1	714.2	927.8	1274.5	1425.6
140°	670.5	732.8	926.8	1236.3	1379.1
142.5°	690.8	750.5	926.8	1199.8	1327.3
145°	723.8	777.1	928.0	1146.2	1255.0
147.5°	755.9	802.1	929.6	1100.6	1184.7
150°	777.2	818.0	931.4	1073.5	1144.9
152.5°	798.5	832.1	932.3	1052.7	1109.6
155°	825.9	853.1	933.7	1026.3	1064.8
157.5°	851.9	871.4	935.1	1006.8	1033.7
160°	867.6	883.5	936.1	994.6	1016.1
162.5°	881.5	893.9	936.1	984.3	1000.4
165°	901.3	909.2	936.1	971.1	982.4
167.5°	915.2	920.2	936.3	961.2	967.2
170°	924.5	926.7	937.2	954.7	956.9
172.5°	931.0	932.3	939.1	951.0	950.5
175°	939.5	939.5	939.5	946.4	944.2
177.5°	943.0	942.1	941.2	945.7	942.1
180°	943.0	943.0	943.0	943.0	943.0



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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	17.23	17.98	18.27	19.02	20.43	13.95	14.71	15.00	15.75	17.15
	3H	18.45	19.13	19.51	20.18	21.60	15.01	15.68	16.06	16.73	18.16
	4H	18.90	19.54	19.97	20.59	22.02	15.41	16.04	16.47	17.09	18.52
	6H	19.21	19.80	20.29	20.85	22.30	15.73	16.32	16.81	17.37	18.81
	8H	19.29	19.85	20.37	20.92	22.36	15.81	16.37	16.89	17.44	18.88
	12H	19.32	19.84	20.40	20.91	22.37	15.82	16.35	16.90	17.41	18.87
4H	2H	17.29	17.93	18.37	18.98	20.41	14.51	15.14	15.58	16.20	17.63
	3H	18.76	19.28	19.83	20.36	21.81	15.77	16.29	16.84	17.37	18.82
	4H	19.35	19.83	20.43	20.90	22.37	16.27	16.75	17.35	17.82	19.29
	6H	19.79	20.21	20.89	21.30	22.76	16.70	17.11	17.79	18.21	19.66
	8H	19.92	20.31	21.02	21.40	22.87	16.82	17.20	17.91	18.29	19.76
	12H	19.97	20.32	21.08	21.42	22.90	16.84	17.18	17.94	18.28	19.76
8H	4H	19.37	19.75	20.46	20.84	22.31	16.57	16.95	17.66	18.04	19.51
	6H	19.91	20.23	21.02	21.36	22.83	17.10	17.42	18.21	18.55	20.02
	8H	20.11	20.39	21.23	21.50	22.99	17.28	17.56	18.40	18.67	20.16
	12H	20.21	20.45	21.33	21.56	23.09	17.34	17.59	18.46	18.69	20.22
12H	4H	19.32	19.67	20.43	20.77	22.25	16.58	16.93	17.69	18.03	19.50
	6H	19.90	20.18	21.02	21.29	22.78	17.16	17.44	18.28	18.55	20.04
	8H	20.10	20.35	21.23	21.46	22.99	17.36	17.61	18.48	18.71	20.24