

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: P854071

Luminaire Tested: SQ2-PH1-150U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854071
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-150U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

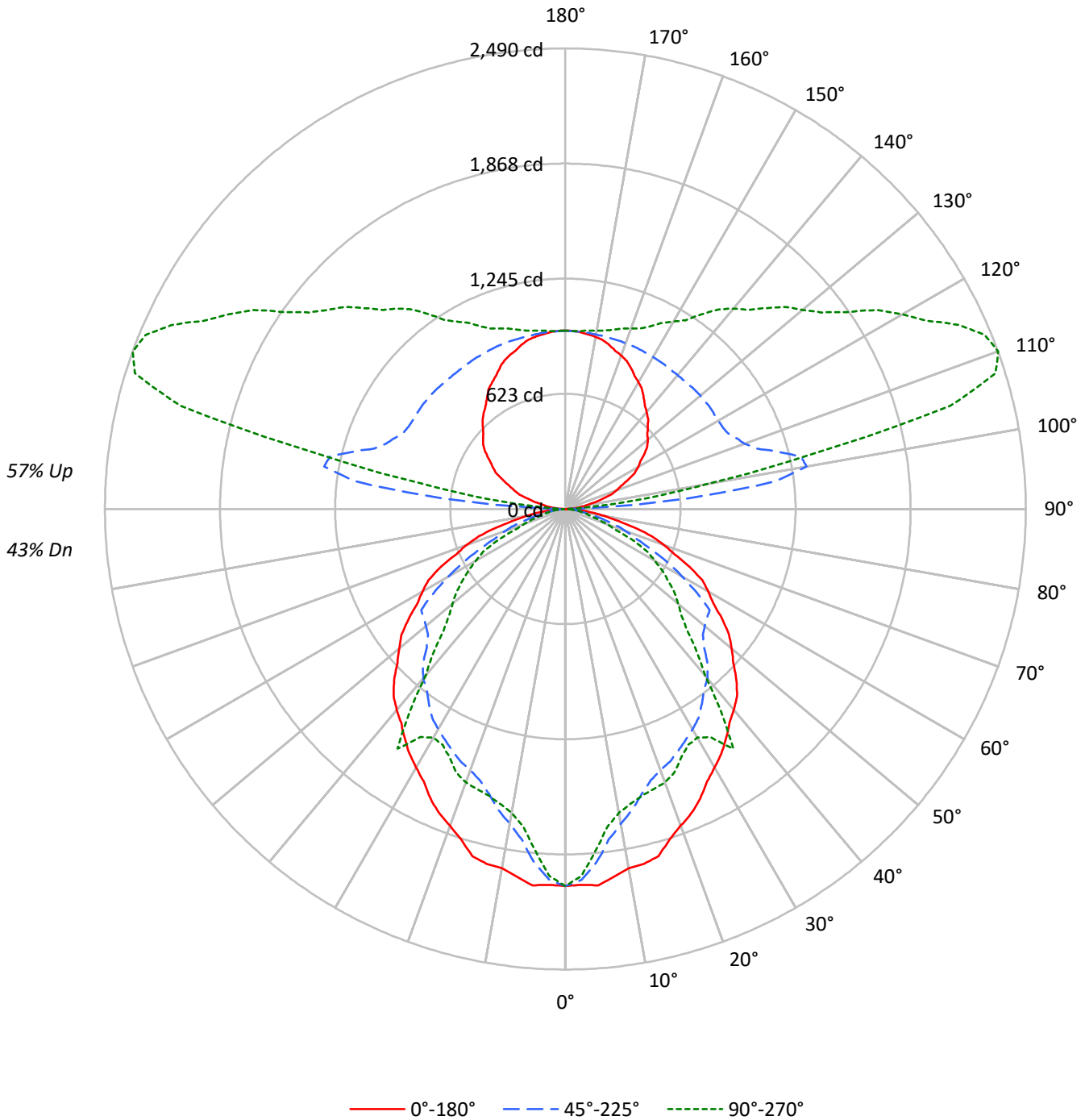
Lumens per Lamp: N/A
Luminaire Lumens: 10455.9 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 94.2
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	44	43	42	37
2	88	81	75	70	80	74	69	65	61	58	55	50	47	45	39	37	36	31
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	35	33	31	26
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	29	26	23
5	67	56	48	42	61	52	45	39	43	38	34	35	31	28	28	25	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	25	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	22	20	21	18	16	14
9	49	37	30	25	45	35	28	24	29	24	21	24	20	18	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	22	19	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32913	32913	32913
5°	33102	31122	30084
10°	32339	28334	27347
15°	32485	26649	26812
20°	31326	25828	27027
25°	30752	25707	26398
30°	30085	25639	26614
35°	29857	25346	31196
40°	29883	25183	24732
45°	29894	24224	21302
50°	29474	24702	19974
55°	29101	26807	19164
60°	28811	23486	17977
65°	28306	19045	15633
70°	26738	16206	11169
75°	23836	12221	8472
80°	19479	7931	7931
85°	12208	7188	5391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29894 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.4	1.7
10°-20°	471.8	4.5
20°-30°	691.8	6.6
30°-40°	837.8	8.0
40°-50°	823.9	7.9
50°-60°	717.2	6.9
60°-70°	498.6	4.8
70°-80°	236.4	2.3
80°-90°	53.1	0.5
90°-100°	367.1	3.5
100°-110°	1201.9	11.5
110°-120°	1188.3	11.4
120°-130°	971.3	9.3
130°-140°	792.7	7.6
140°-150°	616.9	5.9
150°-160°	444.2	4.2
160°-170°	271.7	2.6
170°-180°	91.8	0.9
0°-30°	1343.0	12.8
0°-40°	2180.8	20.9
0°-60°	3721.8	35.6
0°-90°	4510.0	43.1
90°-120°	2757.3	26.4
90°-150°	5138.2	49.1
90°-180°	5946.0	56.9
0°-180°	10455.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2038	2038	2038	2038	2038	
5°	2042	2040	1920	1860	1856	192
15°	1943	1731	1594	1583	1604	542
25°	1726	1468	1443	1488	1482	794
35°	1515	1225	1286	1397	1583	949
45°	1309	970	1061	1098	933	1006
55°	1034	755	952	686	681	924
65°	741	519	498	409	409	728
75°	382	264	196	140	136	405
85°	66	43	39	31	29	88
90°	1	3	8	7	8	5
95°	52	149	667	238	154	58
105°	209	298	1193	2267	2153	220
115°	376	450	969	2003	2351	372
125°	524	584	955	1580	1855	466
135°	631	698	948	1362	1536	488
145°	738	792	946	1172	1284	462
155°	841	869	952	1048	1089	387
165°	918	926	955	992	1003	259
175°	959	959	960	967	965	91
180°	963	963	963	963	963	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2038.5	2038.5	2038.5	2038.5	2038.5
2.5°	2033.8	2055.1	2007.4	1988.8	1985.7
5°	2042.4	2040.5	1920.2	1860.0	1856.2
7.5°	2005.1	1946.3	1802.6	1736.2	1733.2
10°	1972.5	1883.4	1728.2	1668.0	1668.0
12.5°	1964.8	1824.1	1667.6	1623.2	1632.3
15°	1943.4	1731.0	1594.3	1583.2	1604.0
17.5°	1872.8	1644.1	1537.3	1562.7	1587.0
20°	1823.2	1597.5	1503.2	1550.2	1573.0
22.5°	1781.3	1552.6	1478.3	1529.8	1542.0
25°	1726.2	1468.3	1443.0	1487.5	1481.8
27.5°	1660.3	1391.0	1407.7	1435.0	1438.4
30°	1613.7	1344.4	1375.2	1402.9	1427.5
32.5°	1568.7	1290.3	1339.5	1405.1	1461.7
35°	1514.8	1224.6	1285.9	1396.8	1582.7
37.5°	1458.2	1147.1	1232.0	1325.3	1384.5
40°	1417.8	1091.6	1194.8	1310.0	1173.4
42.5°	1374.4	1048.2	1138.9	1287.7	1057.1
45°	1309.2	969.7	1060.9	1097.9	932.9
47.5°	1232.4	908.9	1008.2	915.6	851.1
50°	1173.4	868.1	983.4	836.9	795.2
52.5°	1116.0	825.9	966.3	772.1	744.0
55°	1033.8	755.0	952.3	686.5	680.8
57.5°	946.5	682.9	842.2	612.0	621.8
60°	892.2	636.2	727.3	568.0	556.7
62.5°	834.8	590.9	620.3	512.2	500.8
65°	740.9	519.0	498.5	409.2	409.2
67.5°	637.7	444.3	403.8	334.9	289.4
70°	566.4	395.7	343.3	267.0	236.6
72.5°	490.3	343.9	281.2	218.8	183.9
75°	382.1	264.5	195.9	139.6	135.8
77.5°	276.2	190.5	131.9	103.6	104.0
80°	209.5	145.0	85.3	83.4	85.3
82.5°	147.4	99.6	63.6	66.3	66.7
85°	65.9	43.2	38.8	31.0	29.1
87.5°	14.2	13.0	9.3	9.1	9.3
90°	1.0	2.9	7.9	7.0	7.9
92.5°	16.8	61.4	188.5	61.3	49.1
95°	51.5	149.3	667.3	237.7	154.5
97.5°	93.5	196.9	1144.9	692.6	429.3
100°	122.8	221.5	1324.7	1183.0	784.1
102.5°	156.0	252.5	1304.9	1743.1	1351.3
105°	208.9	298.0	1193.0	2266.7	2153.4
107.5°	261.0	342.7	1083.9	2315.6	2440.1
110°	295.0	374.4	1031.7	2258.7	2490.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	327.5	404.6	1000.0	2159.5	2456.0
115°	376.2	449.8	969.3	2002.9	2351.4
117.5°	423.6	492.3	957.6	1849.0	2202.9
120°	454.4	519.3	954.4	1759.3	2103.9
122.5°	482.2	545.5	954.4	1681.9	2001.7
125°	523.7	583.8	955.4	1579.5	1855.4
127.5°	559.0	620.2	954.2	1504.0	1744.1
130°	581.2	643.1	953.4	1458.4	1675.2
132.5°	601.0	664.5	951.1	1419.1	1615.8
135°	630.7	697.5	947.5	1362.3	1535.6
137.5°	662.0	728.2	945.3	1303.1	1459.8
140°	684.1	748.0	944.5	1265.7	1413.8
142.5°	706.3	766.3	944.5	1225.8	1360.0
145°	737.6	791.8	945.5	1171.8	1284.1
147.5°	770.5	815.6	946.9	1124.9	1209.7
150°	791.1	830.8	948.5	1097.6	1169.3
152.5°	811.7	846.7	949.3	1075.2	1134.4
155°	840.6	868.6	951.5	1048.4	1089.1
157.5°	866.5	886.8	953.6	1027.4	1056.8
160°	883.1	899.6	954.4	1015.4	1038.6
162.5°	897.4	910.8	954.4	1005.7	1022.7
165°	917.8	926.5	955.4	992.3	1002.9
167.5°	935.0	939.3	956.6	981.9	987.7
170°	944.5	946.5	957.4	976.3	978.2
172.5°	951.7	952.8	959.8	972.3	972.6
175°	959.4	959.4	960.4	967.3	965.3
177.5°	963.3	962.6	961.8	966.4	963.3
180°	963.3	963.3	963.3	963.3	963.3



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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	18.80	19.59	19.81	20.62	21.98	17.47	18.27	18.48	19.29	20.66
	3H	20.82	21.53	21.84	22.56	23.95	18.50	19.21	19.52	20.24	21.63
	4H	21.54	22.22	22.58	23.25	24.65	18.71	19.38	19.75	20.42	21.81
	6H	22.03	22.65	23.07	23.69	25.09	18.85	19.47	19.90	20.51	21.92
	8H	22.15	22.74	23.20	23.80	25.20	18.88	19.47	19.93	20.53	21.93
	12H	22.19	22.75	23.25	23.80	25.23	18.88	19.44	19.93	20.49	21.91
4H	2H	19.16	19.84	20.21	20.87	22.27	18.10	18.78	19.15	19.81	21.21
	3H	21.26	21.83	22.32	22.89	24.30	19.28	19.84	20.33	20.90	22.31
	4H	22.08	22.59	23.14	23.64	25.07	19.55	20.06	20.61	21.12	22.55
	6H	22.66	23.10	23.73	24.18	25.60	19.75	20.19	20.82	21.27	22.70
	8H	22.83	23.24	23.90	24.31	25.75	19.81	20.22	20.88	21.29	22.73
	12H	22.89	23.26	23.98	24.35	25.79	19.81	20.18	20.90	21.27	22.71
8H	4H	22.09	22.50	23.16	23.57	25.01	19.76	20.17	20.83	21.24	22.68
	6H	22.74	23.08	23.83	24.19	25.63	20.03	20.37	21.12	21.48	22.92
	8H	22.96	23.26	24.06	24.36	25.81	20.13	20.43	21.23	21.52	22.98
	12H	23.07	23.33	24.18	24.43	25.92	20.17	20.43	21.28	21.52	23.02
12H	4H	22.04	22.41	23.12	23.49	24.94	19.75	20.13	20.84	21.21	22.65
	6H	22.71	23.01	23.81	24.10	25.56	20.06	20.36	21.16	21.45	22.91
	8H	22.94	23.20	24.04	24.29	25.79	20.17	20.43	21.27	21.52	23.02