

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: P854942

Luminaire Tested: SQ2-PH1-150U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854942
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-075D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

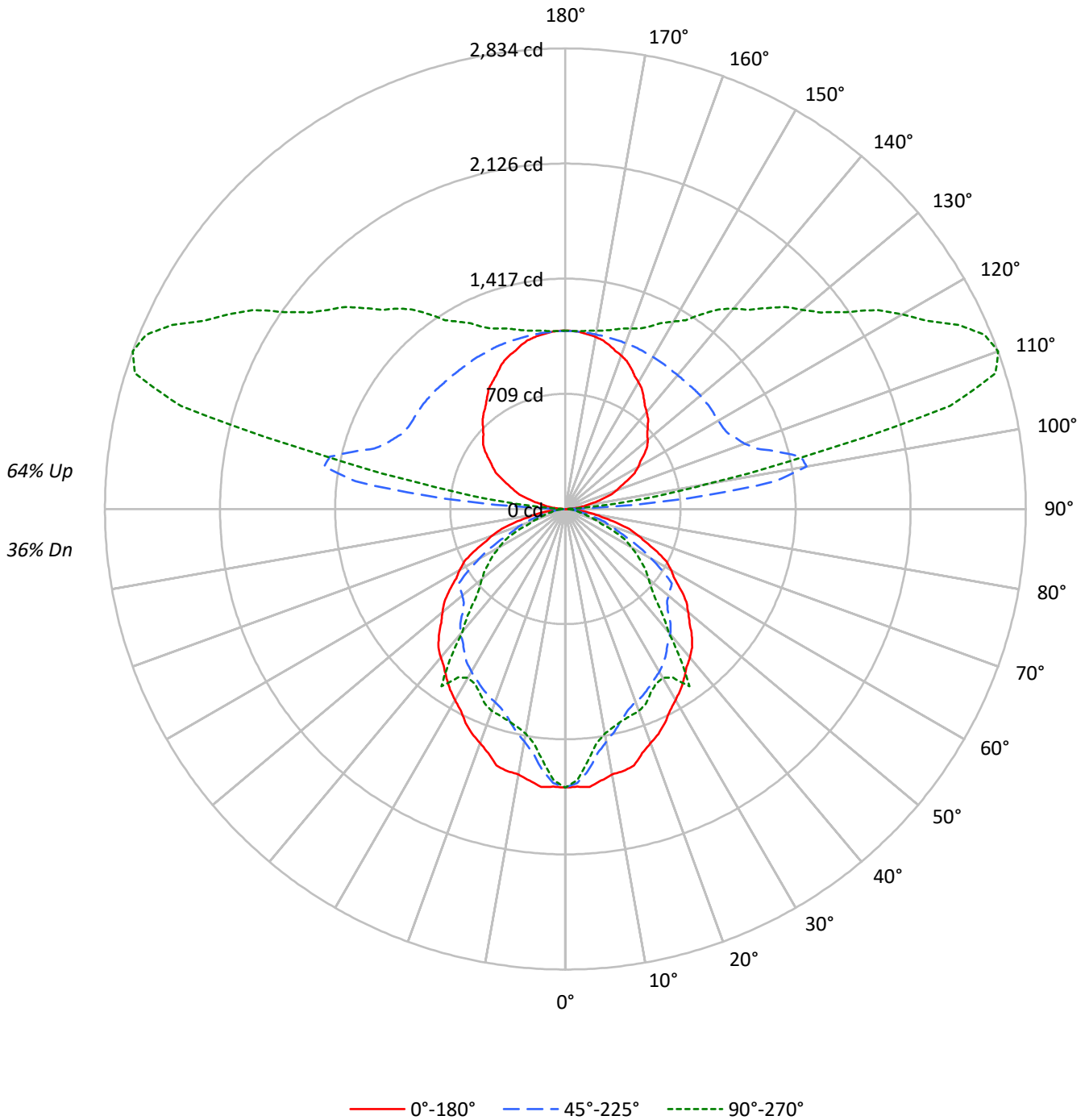
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10559.6 lumens
Efficiency: N/A
Efficacy: 126.8 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: 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	43	43	43	36
1	95	91	87	84	86	82	79	76	66	64	62	52	50	49	38	38	37	31
2	86	79	73	68	78	72	67	63	58	55	52	46	43	41	34	32	31	26
3	79	70	63	57	71	63	57	52	51	47	43	40	37	35	30	28	27	22
4	72	62	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	24	22	20	16
6	61	49	41	36	55	45	38	33	37	32	28	29	25	23	22	20	18	14
7	56	44	36	31	51	40	34	29	33	28	24	26	23	20	20	18	16	13
8	52	40	33	27	47	37	30	25	30	25	22	24	20	18	18	16	14	11
9	48	36	29	24	44	33	27	23	28	23	19	22	18	16	17	14	13	10
10	45	33	26	22	41	31	24	20	25	21	17	20	17	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27679	27679	27679
5°	27835	26172	25298
10°	27196	23825	22997
15°	27318	22410	22547
20°	26344	21720	22727
25°	25860	21618	22199
30°	25299	21559	22380
35°	25109	21313	26233
40°	25130	21176	20799
45°	25138	20372	17915
50°	24787	20773	16799
55°	24473	22542	16113
60°	24228	19753	15116
65°	23805	16011	13150
70°	22480	13629	9394
75°	20044	10274	7124
80°	16383	6676	6676
85°	10263	6058	4520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25138 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.8	1.4
10°-20°	396.8	3.8
20°-30°	581.8	5.5
30°-40°	704.5	6.7
40°-50°	692.8	6.6
50°-60°	603.1	5.7
60°-70°	419.3	4.0
70°-80°	198.8	1.9
80°-90°	45.0	0.4
90°-100°	417.7	4.0
100°-110°	1367.8	13.0
110°-120°	1352.3	12.8
120°-130°	1105.4	10.5
130°-140°	902.1	8.5
140°-150°	702.0	6.6
150°-160°	505.5	4.8
160°-170°	309.2	2.9
170°-180°	104.5	1.0
0°-30°	1129.3	10.7
0°-40°	1833.9	17.4
0°-60°	3129.8	29.6
0°-90°	3792.9	35.9
90°-120°	3137.9	29.7
90°-150°	5847.4	55.4
90°-180°	6767.0	64.1
0°-180°	10559.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1717	1716	1615	1564	1561	161
15°	1634	1456	1341	1331	1349	456
25°	1452	1235	1214	1251	1246	668
35°	1274	1030	1081	1175	1331	798
45°	1101	816	892	923	785	846
55°	869	635	801	577	572	777
65°	623	436	419	344	344	612
75°	321	222	165	117	114	340
85°	55	36	33	26	24	74
90°	1	3	9	8	9	5
95°	59	170	760	271	176	66
105°	238	339	1358	2580	2451	250
115°	428	512	1103	2279	2676	423
125°	596	664	1087	1798	2112	530
135°	718	794	1078	1550	1748	555
145°	839	901	1076	1334	1461	526
155°	957	988	1083	1193	1239	440
165°	1044	1054	1087	1129	1141	294
175°	1092	1092	1093	1101	1098	104
180°	1096	1096	1096	1096	1096	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1714.3	1714.3	1714.3	1714.3	1714.3
2.5°	1710.3	1728.2	1688.2	1672.4	1669.8
5°	1717.4	1715.9	1614.8	1564.1	1560.9
7.5°	1686.1	1636.7	1515.9	1460.0	1457.5
10°	1658.8	1583.8	1453.2	1402.7	1402.7
12.5°	1652.2	1533.9	1402.3	1365.0	1372.7
15°	1634.3	1455.7	1340.7	1331.3	1348.9
17.5°	1575.0	1382.6	1292.8	1314.1	1334.5
20°	1533.2	1343.4	1264.1	1303.6	1322.7
22.5°	1498.0	1305.7	1243.1	1286.4	1296.7
25°	1451.6	1234.8	1213.5	1250.9	1246.1
27.5°	1396.1	1169.8	1183.8	1206.7	1209.6
30°	1357.0	1130.5	1156.4	1179.7	1200.4
32.5°	1319.2	1085.1	1126.3	1181.6	1229.1
35°	1273.9	1029.8	1081.3	1174.6	1330.9
37.5°	1226.2	964.7	1036.0	1114.5	1164.2
40°	1192.3	918.0	1004.7	1101.6	986.8
42.5°	1155.7	881.4	957.8	1082.8	888.9
45°	1100.9	815.5	892.2	923.3	784.6
47.5°	1036.3	764.3	847.9	770.0	715.7
50°	986.8	730.1	827.0	703.8	668.8
52.5°	938.5	694.6	812.6	649.2	625.7
55°	869.4	634.9	800.8	577.3	572.4
57.5°	796.0	574.3	708.2	514.7	522.9
60°	750.3	535.0	611.7	477.7	468.1
62.5°	702.0	496.9	521.6	430.7	421.2
65°	623.1	436.4	419.1	344.2	344.2
67.5°	536.3	373.6	339.5	281.6	243.3
70°	476.2	332.7	288.7	224.5	199.0
72.5°	412.3	289.2	236.5	184.0	154.7
75°	321.3	222.4	164.7	117.4	114.2
77.5°	232.2	160.2	110.9	87.1	87.4
80°	176.2	121.9	71.8	70.2	71.8
82.5°	123.9	83.8	53.5	55.7	56.1
85°	55.4	36.3	32.7	26.0	24.4
87.5°	12.0	11.1	8.4	8.1	8.4
90°	1.1	3.3	9.0	7.9	9.0
92.5°	19.1	69.9	214.5	69.8	55.9
95°	58.6	169.8	759.5	270.6	175.8
97.5°	106.4	224.0	1303.0	788.2	488.6
100°	139.7	252.1	1507.6	1346.3	892.4
102.5°	177.6	287.3	1485.1	1983.7	1537.8
105°	237.8	339.1	1357.7	2579.6	2450.7
107.5°	297.0	390.0	1233.5	2635.3	2777.0
110°	335.8	426.1	1174.1	2570.4	2833.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	372.8	460.4	1138.0	2457.7	2794.9
115°	428.2	511.8	1103.1	2279.4	2676.0
117.5°	482.0	560.2	1089.8	2104.2	2507.0
120°	517.2	591.0	1086.2	2002.1	2394.4
122.5°	548.7	620.7	1086.2	1914.1	2278.0
125°	596.1	664.4	1087.3	1797.5	2111.5
127.5°	636.2	705.7	1086.0	1711.7	1984.8
130°	661.4	731.9	1085.1	1659.7	1906.5
132.5°	683.9	756.2	1082.4	1615.0	1838.9
135°	717.7	793.7	1078.3	1550.3	1747.5
137.5°	753.3	828.6	1075.8	1483.1	1661.3
140°	778.6	851.3	1074.9	1440.4	1609.0
142.5°	803.8	872.2	1074.9	1395.0	1547.7
145°	839.4	901.1	1076.0	1333.6	1461.4
147.5°	876.8	928.1	1077.6	1280.1	1376.7
150°	900.2	945.4	1079.4	1249.1	1330.7
152.5°	923.7	963.5	1080.3	1223.6	1291.0
155°	956.6	988.5	1082.8	1193.2	1239.4
157.5°	986.1	1009.2	1085.3	1169.2	1202.7
160°	1005.0	1023.8	1086.2	1155.5	1182.0
162.5°	1021.3	1036.5	1086.2	1144.5	1163.9
165°	1044.5	1054.4	1087.3	1129.3	1141.4
167.5°	1064.0	1068.9	1088.7	1117.4	1124.1
170°	1074.9	1077.2	1089.6	1111.0	1113.2
172.5°	1083.0	1084.4	1092.3	1106.4	1106.9
175°	1091.9	1091.9	1093.0	1100.8	1098.5
177.5°	1096.3	1095.5	1094.5	1099.9	1096.3
180°	1096.3	1096.3	1096.3	1096.3	1096.3



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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	17.40	18.14	18.47	19.21	20.67	16.07	16.82	17.14	17.89	19.35
	3H	19.42	20.08	20.50	21.16	22.64	17.10	17.76	18.18	18.84	20.32
	4H	20.14	20.77	21.23	21.85	23.34	17.31	17.94	18.40	19.02	20.50
	6H	20.62	21.20	21.72	22.28	23.78	17.44	18.02	18.54	19.11	20.60
	8H	20.74	21.29	21.85	22.39	23.88	17.47	18.02	18.58	19.12	20.61
	12H	20.78	21.31	21.89	22.40	23.91	17.47	17.99	18.58	19.08	20.60
4H	2H	17.76	18.39	18.86	19.47	20.96	16.70	17.33	17.80	18.41	19.89
	3H	19.85	20.38	20.96	21.49	22.98	17.87	18.39	18.97	19.50	21.00
	4H	20.66	21.15	21.77	22.24	23.76	18.14	18.62	19.25	19.72	21.24
	6H	21.24	21.65	22.36	22.78	24.29	18.34	18.75	19.46	19.87	21.38
	8H	21.41	21.79	22.53	22.91	24.43	18.39	18.78	19.51	19.89	21.42
	12H	21.47	21.82	22.61	22.95	24.48	18.40	18.74	19.53	19.87	21.40
8H	4H	20.67	21.06	21.79	22.17	23.70	18.34	18.73	19.46	19.84	21.37
	6H	21.32	21.64	22.46	22.79	24.32	18.61	18.93	19.75	20.08	21.61
	8H	21.54	21.82	22.69	22.96	24.50	18.71	18.99	19.86	20.13	21.67
	12H	21.65	21.90	22.80	23.03	24.61	18.75	19.00	19.90	20.13	21.71
12H	4H	20.62	20.97	21.75	22.09	23.62	18.34	18.68	19.47	19.81	21.34
	6H	21.29	21.57	22.44	22.71	24.25	18.64	18.92	19.79	20.05	21.60
	8H	21.52	21.76	22.67	22.90	24.47	18.75	18.99	19.90	20.13	21.71