

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: P854489

Luminaire Tested: SQ2-WBN-150U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854489
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-150U-075D-940-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

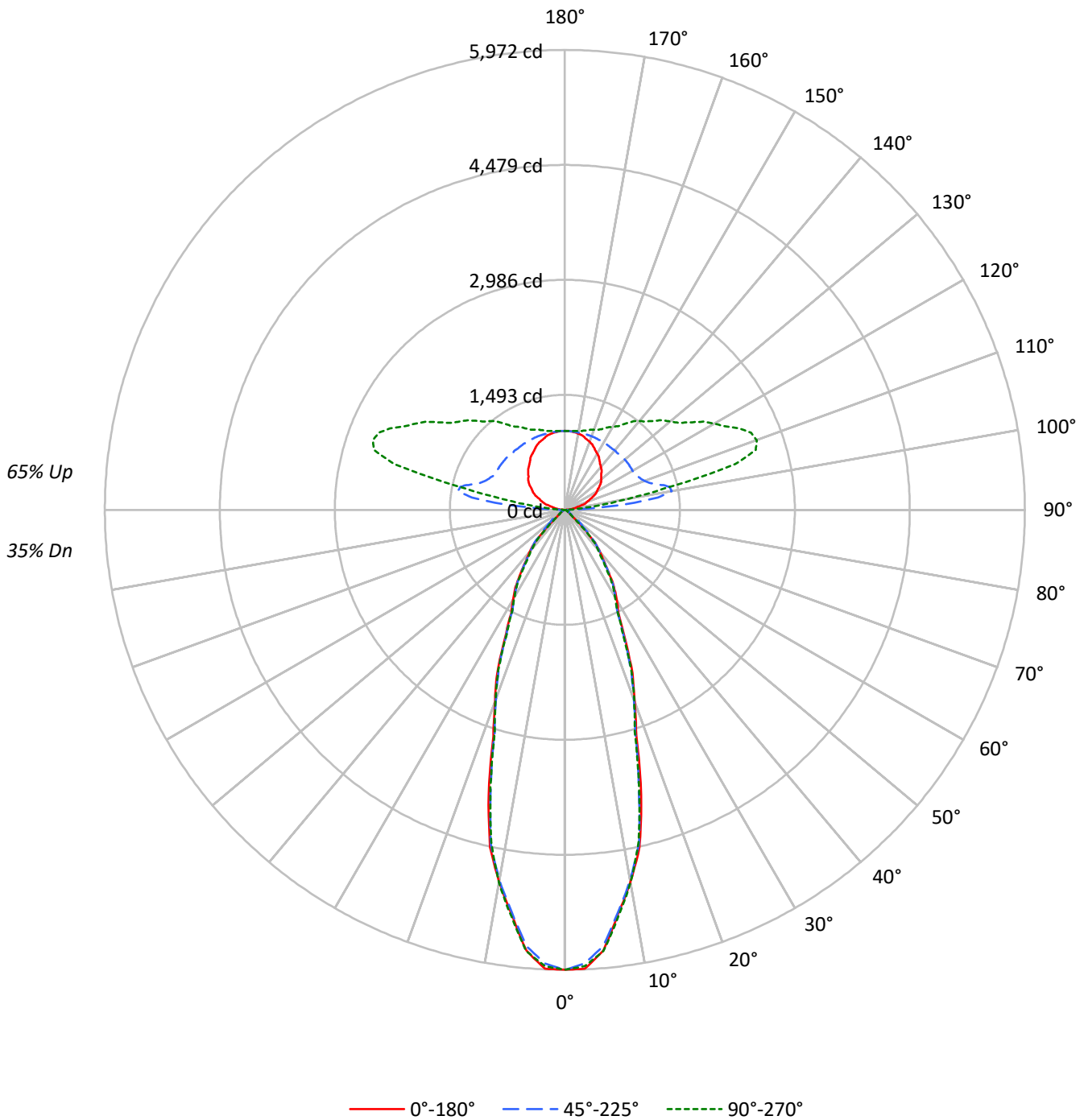
Lumens per Lamp: N/A
Luminaire Lumens: 9799.3 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 84.2
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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	96	92	89	86	87	84	81	79	68	66	65	54	53	52	40	40	39	33
2	89	83	78	74	81	76	71	68	62	59	57	49	48	46	38	37	36	31
3	83	75	69	64	75	68	63	59	56	53	50	45	43	41	35	34	33	29
4	77	68	61	56	70	62	57	52	52	48	45	42	40	37	33	32	30	27
5	71	62	55	50	65	57	51	46	48	43	40	39	36	34	31	30	28	25
6	67	56	49	44	61	52	46	42	44	40	37	36	34	31	29	28	26	23
7	62	52	45	40	57	48	42	38	41	36	33	34	31	29	28	26	25	22
8	58	48	41	37	53	44	39	35	38	34	31	32	29	27	26	24	23	21
9	55	44	38	33	50	41	36	32	35	31	28	30	27	25	25	23	22	20
10	52	41	35	31	48	38	33	29	33	29	26	28	25	23	24	22	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	96416	96416	96416
5°	93093	92166	93196
10°	80466	80084	80658
15°	64030	62012	62260
20°	45486	44886	45213
25°	32724	32083	31857
30°	25003	24332	24274
35°	19628	19293	18792
40°	14870	14670	13955
45°	8321	9942	7426
50°	2926	6121	2582
55°	1790	3339	1700
60°	1369	1744	1266
65°	1253	1295	1173
70°	1199	1199	1100
75°	1123	1123	1054
80°	986	986	986
85°	982	778	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9942 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	518.4	5.3
10°-20°	1030.2	10.5
20°-30°	853.1	8.7
30°-40°	613.8	6.3
40°-50°	312.7	3.2
50°-60°	81.4	0.8
60°-70°	33.8	0.3
70°-80°	18.7	0.2
80°-90°	6.7	0.1
90°-100°	390.8	4.0
100°-110°	1279.7	13.1
110°-120°	1265.1	12.9
120°-130°	1034.2	10.6
130°-140°	843.9	8.6
140°-150°	656.8	6.7
150°-160°	472.9	4.8
160°-170°	289.3	3.0
170°-180°	97.8	1.0
0°-30°	2401.7	24.5
0°-40°	3015.5	30.8
0°-60°	3409.6	34.8
0°-90°	3468.8	35.4
90°-120°	2935.6	30.0
90°-150°	5470.5	55.8
90°-180°	6330.0	64.6
0°-180°	9799.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5972	5972	5972	5972	5972	
5°	5744	5736	5687	5769	5750	518
15°	3831	3787	3710	3736	3725	1040
25°	1837	1834	1801	1785	1788	864
35°	996	1002	979	963	953	625
45°	364	419	435	405	325	291
55°	64	74	119	69	60	63
65°	33	34	34	32	31	33
75°	18	18	18	17	17	19
85°	5	5	4	5	4	6
90°	1	3	8	7	8	3
95°	55	159	710	253	164	62
105°	222	317	1270	2413	2293	234
115°	401	479	1032	2132	2504	396
125°	558	622	1017	1682	1975	496
135°	672	743	1009	1450	1635	520
145°	785	843	1007	1248	1367	492
155°	895	925	1013	1116	1160	412
165°	977	986	1017	1056	1068	275
175°	1021	1021	1022	1030	1028	97
180°	1026	1026	1026	1026	1026	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5971.6	5971.6	5971.6	5971.6	5971.6
2.5°	5962.3	5952.3	5895.3	5942.5	5930.9
5°	5743.8	5735.6	5686.6	5768.8	5750.2
7.5°	5292.8	5299.8	5271.2	5343.8	5323.9
10°	4908.0	4926.7	4884.7	4990.1	4919.7
12.5°	4483.4	4471.4	4442.3	4458.6	4419.6
15°	3830.6	3787.1	3709.9	3736.1	3724.7
17.5°	3085.5	3102.3	3035.3	3032.4	3019.6
20°	2647.3	2652.5	2612.4	2633.5	2631.4
22.5°	2294.8	2295.8	2244.6	2275.5	2256.9
25°	1836.9	1833.8	1800.9	1785.1	1788.2
27.5°	1506.4	1493.6	1468.7	1479.1	1471.4
30°	1341.1	1330.8	1305.1	1311.3	1302.0
32.5°	1192.8	1193.3	1167.0	1163.9	1157.0
35°	995.8	1002.0	978.8	962.7	953.4
37.5°	819.9	825.7	806.2	782.7	774.8
40°	705.5	709.7	696.0	668.3	662.1
42.5°	581.0	598.4	585.0	558.8	545.1
45°	364.4	419.3	435.4	405.0	325.2
47.5°	184.3	260.4	310.6	229.4	151.1
50°	116.5	169.4	243.7	138.0	102.8
52.5°	89.4	116.5	194.5	101.9	82.4
55°	63.6	73.9	118.6	68.7	60.4
57.5°	49.2	55.0	71.0	52.0	46.8
60°	42.4	46.5	54.0	44.4	39.2
62.5°	38.1	40.6	43.9	37.7	35.8
65°	32.8	33.9	33.9	31.8	30.7
67.5°	28.0	29.0	28.8	27.7	26.7
70°	25.4	26.5	25.4	24.3	23.3
72.5°	22.0	23.1	22.0	21.8	20.8
75°	18.0	18.0	18.0	16.9	16.9
77.5°	14.0	14.2	13.1	13.1	12.3
80°	10.6	11.6	10.6	10.6	10.6
82.5°	8.9	9.1	8.1	8.1	8.1
85°	5.3	5.3	4.2	5.3	4.2
87.5°	1.9	2.3	3.4	3.2	3.4
90°	1.1	3.1	8.4	7.4	8.4
92.5°	17.9	65.3	200.7	65.3	52.3
95°	54.8	158.9	710.5	253.1	164.4
97.5°	99.5	209.6	1219.0	737.4	457.1
100°	130.7	235.8	1410.4	1259.5	834.9
102.5°	166.1	268.8	1389.3	1855.9	1438.7
105°	222.4	317.2	1270.2	2413.3	2292.7
107.5°	277.9	364.9	1154.0	2465.4	2598.0
110°	314.1	398.6	1098.4	2404.8	2651.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	348.7	430.7	1064.7	2299.2	2614.8
115°	400.6	478.9	1032.0	2132.5	2503.5
117.5°	451.0	524.1	1019.5	1968.6	2345.4
120°	483.8	552.9	1016.2	1873.1	2240.0
122.5°	513.4	580.8	1016.2	1790.7	2131.2
125°	557.6	621.5	1017.2	1681.7	1975.4
127.5°	595.2	660.3	1016.0	1601.3	1856.9
130°	618.8	684.7	1015.1	1552.7	1783.6
132.5°	639.8	707.5	1012.6	1510.9	1720.3
135°	671.5	742.6	1008.8	1450.4	1634.9
137.5°	704.8	775.3	1006.5	1387.4	1554.2
140°	728.4	796.4	1005.6	1347.6	1505.3
142.5°	752.0	815.9	1005.6	1305.1	1447.9
145°	785.3	843.0	1006.7	1247.6	1367.2
147.5°	820.3	868.3	1008.2	1197.6	1287.9
150°	842.2	884.5	1009.8	1168.6	1244.9
152.5°	864.2	901.5	1010.7	1144.7	1207.8
155°	894.9	924.8	1013.0	1116.2	1159.5
157.5°	922.6	944.2	1015.3	1093.8	1125.2
160°	940.3	957.8	1016.2	1081.0	1105.8
162.5°	955.5	969.7	1016.2	1070.8	1088.9
165°	977.2	986.4	1017.2	1056.5	1067.8
167.5°	995.5	1000.0	1018.5	1045.4	1051.6
170°	1005.6	1007.7	1019.3	1039.4	1041.5
172.5°	1013.2	1014.5	1021.9	1035.2	1035.6
175°	1021.4	1021.4	1022.5	1029.8	1027.8
177.5°	1025.7	1024.8	1024.0	1029.0	1025.7
180°	1025.7	1025.7	1025.7	1025.7	1025.7



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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	1.16	1.79	2.27	2.87	4.35	0.78	1.41	1.88	2.49	3.97
	3H	2.21	2.77	3.32	3.85	5.35	1.77	2.33	2.88	3.42	4.92
	4H	2.63	3.16	3.75	4.25	5.75	2.19	2.72	3.31	3.81	5.31
	6H	2.94	3.43	4.07	4.52	6.03	2.52	3.01	3.65	4.10	5.61
	8H	3.04	3.50	4.17	4.60	6.11	2.62	3.08	3.75	4.19	5.69
	12H	3.10	3.54	4.23	4.64	6.16	2.67	3.10	3.80	4.20	5.73
4H	2H	1.37	1.91	2.50	2.99	4.50	1.05	1.58	2.18	2.67	4.17
	3H	2.67	3.11	3.80	4.23	5.74	2.29	2.73	3.42	3.84	5.35
	4H	3.23	3.63	4.36	4.74	6.27	2.84	3.24	3.97	4.35	5.88
	6H	3.68	4.02	4.82	5.15	6.68	3.30	3.64	4.44	4.77	6.30
	8H	3.84	4.16	4.98	5.28	6.82	3.46	3.78	4.59	4.90	6.43
	12H	3.94	4.23	5.09	5.36	6.91	3.54	3.83	4.69	4.96	6.50
8H	4H	3.37	3.69	4.51	4.81	6.35	3.02	3.34	4.16	4.46	6.00
	6H	3.96	4.22	5.11	5.38	6.92	3.61	3.87	4.77	5.03	6.57
	8H	4.20	4.43	5.37	5.58	7.13	3.85	4.08	5.02	5.22	6.78
	12H	4.39	4.59	5.56	5.73	7.32	4.02	4.22	5.18	5.36	6.95
12H	4H	3.34	3.63	4.50	4.77	6.31	3.00	3.29	4.16	4.42	5.97
	6H	3.98	4.21	5.15	5.35	6.91	3.65	3.87	4.81	5.02	6.57
	8H	4.25	4.45	5.42	5.59	7.18	3.91	4.11	5.08	5.25	6.84