

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: P854319

Luminaire Tested: SQ2-PW1-150U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854319
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-150U-075D-930-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

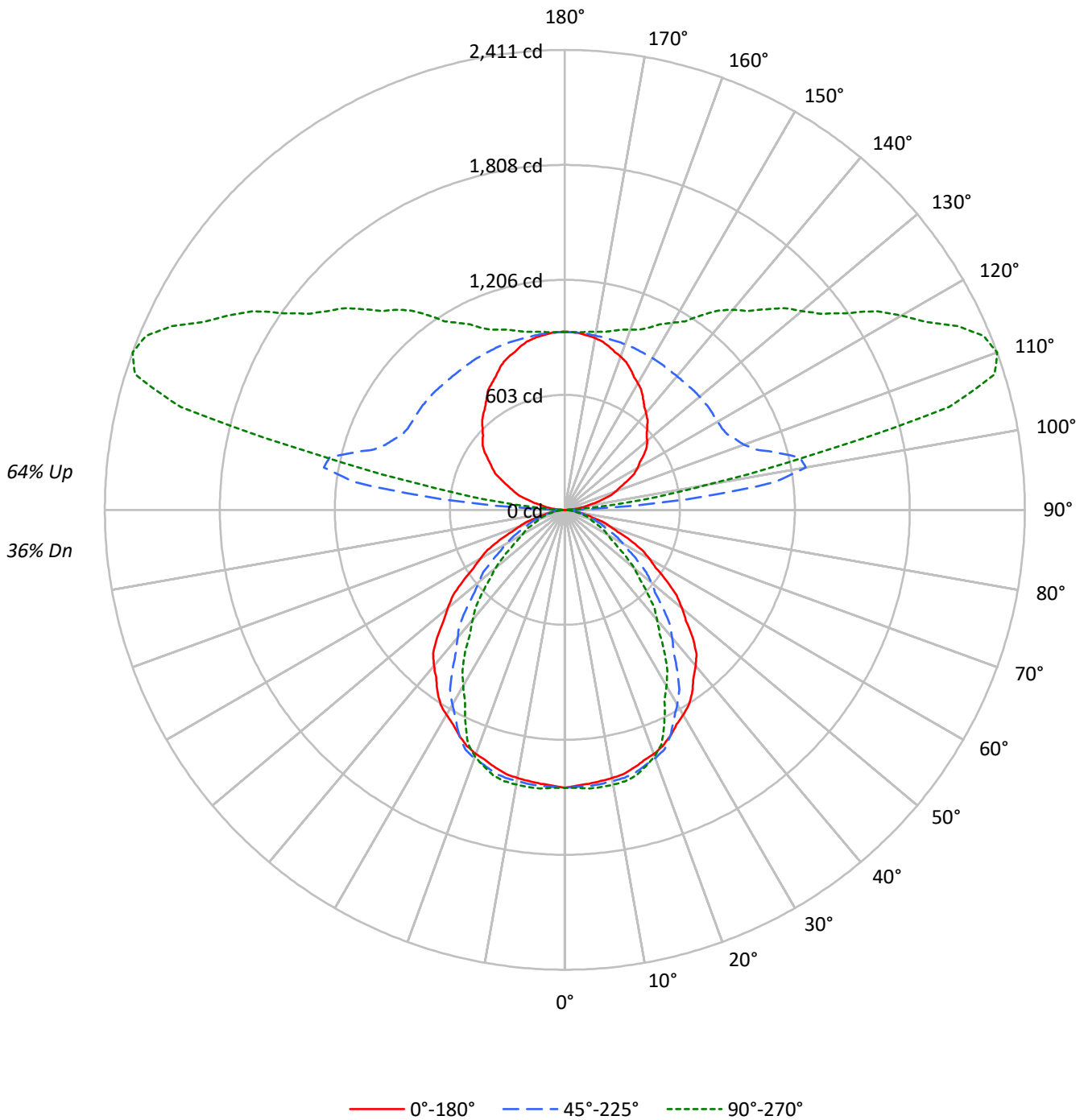
Lumens per Lamp: N/A
Luminaire Lumens: 8989.7 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36				36
1	95	91	87	84	86	83	80	77	67	65	63	52	51	50	39	38	37	31				31
2	87	80	74	69	78	73	68	64	59	56	53	46	44	42	35	33	32	27				27
3	79	71	64	58	72	64	58	54	52	48	45	41	38	36	31	29	28	23				23
4	73	63	55	49	66	57	51	46	47	42	38	37	34	31	28	26	24	20				20
5	67	56	48	42	60	51	44	39	42	37	33	33	30	27	25	23	21	18				18
6	62	50	42	37	56	46	39	34	38	33	29	30	27	24	23	21	19	16				16
7	57	45	38	32	52	42	35	30	34	29	26	28	24	21	21	19	17	14				14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	20	17	15	13				13
9	49	38	30	25	45	34	28	24	29	24	20	23	20	17	18	16	14	12				12
10	46	34	27	23	42	32	25	21	26	22	18	21	18	15	17	14	13	11				11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23521	23521	23521
5°	23365	23545	23770
10°	23407	23681	23976
15°	23402	23841	24120
20°	23411	23816	23649
25°	23284	23309	21975
30°	23126	21962	19867
35°	22945	20209	17940
40°	22489	18423	15850
45°	21607	16568	13844
50°	20110	14812	11848
55°	18396	13084	9607
60°	16488	11380	8289
65°	14418	9807	7370
70°	11788	8710	6680
75°	9177	7530	6145
80°	6834	6453	5421
85°	4631	4891	3075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21607 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.7	1.5
10°-20°	401.9	4.5
20°-30°	591.5	6.6
30°-40°	646.7	7.2
40°-50°	580.2	6.5
50°-60°	432.8	4.8
60°-70°	273.5	3.0
70°-80°	135.5	1.5
80°-90°	32.7	0.4
90°-100°	355.3	4.0
100°-110°	1163.6	12.9
110°-120°	1150.4	12.8
120°-130°	940.4	10.5
130°-140°	767.4	8.5
140°-150°	597.2	6.6
150°-160°	430.0	4.8
160°-170°	263.1	2.9
170°-180°	88.9	1.0
0°-30°	1132.2	12.6
0°-40°	1778.9	19.8
0°-60°	2791.8	31.1
0°-90°	3233.5	36.0
90°-120°	2669.3	29.7
90°-150°	4974.2	55.3
90°-180°	5756.0	64.0
0°-180°	8989.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1442	1465	1453	1454	1467	137
15°	1400	1427	1426	1436	1443	395
25°	1307	1336	1308	1254	1234	602
35°	1164	1152	1025	936	910	726
45°	946	870	726	635	606	726
55°	654	591	465	364	341	584
65°	377	346	257	206	193	374
75°	147	158	121	101	98	162
85°	25	32	26	18	17	32
90°	1	3	8	7	8	3
95°	50	144	646	230	150	57
105°	202	288	1155	2194	2085	213
115°	364	435	938	1939	2276	360
125°	507	565	925	1529	1796	451
135°	611	675	917	1319	1487	472
145°	714	766	915	1134	1243	447
155°	814	841	921	1015	1054	375
165°	888	897	925	961	971	250
175°	929	929	930	936	934	88
180°	933	933	933	933	933	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1456.8	1456.8	1456.8	1456.8	1456.8
2.5°	1446.9	1465.3	1453.5	1454.7	1458.0
5°	1441.6	1464.6	1452.7	1454.4	1466.6
7.5°	1434.4	1457.7	1448.8	1453.8	1465.7
10°	1427.7	1452.1	1444.4	1451.5	1462.4
12.5°	1418.8	1444.3	1438.8	1447.1	1458.0
15°	1400.0	1427.1	1426.3	1436.2	1443.0
17.5°	1378.0	1405.2	1403.8	1406.4	1409.7
20°	1362.5	1389.6	1386.1	1376.4	1376.4
22.5°	1340.3	1369.6	1360.6	1334.0	1325.3
25°	1307.0	1335.5	1308.4	1253.8	1233.5
27.5°	1268.2	1291.2	1236.8	1159.3	1131.1
30°	1240.4	1258.0	1178.0	1092.7	1065.6
32.5°	1211.5	1218.3	1118.0	1029.4	1000.1
35°	1164.1	1151.9	1025.3	936.0	910.2
37.5°	1108.0	1071.7	936.3	842.7	814.2
40°	1067.0	1015.4	874.1	780.5	752.0
42.5°	1021.5	956.9	815.3	721.6	692.1
45°	946.3	870.3	725.6	634.8	606.3
47.5°	861.6	786.2	641.8	553.9	529.5
50°	800.6	727.3	589.7	501.6	471.7
52.5°	738.4	672.8	538.6	448.1	407.4
55°	653.5	591.1	464.8	364.4	341.3
57.5°	566.1	512.1	397.9	306.8	287.8
60°	510.6	463.1	352.4	275.7	256.7
62.5°	457.3	415.3	308.0	246.9	231.2
65°	377.4	346.2	256.7	206.4	192.9
67.5°	299.7	282.3	213.4	169.3	160.4
70°	249.7	244.3	184.5	148.3	141.5
72.5°	206.5	208.6	156.8	128.4	123.8
75°	147.1	157.9	120.7	101.2	98.5
77.5°	100.2	116.5	89.4	74.9	72.7
80°	73.5	89.8	69.4	58.3	58.3
82.5°	51.3	64.4	49.4	43.8	43.8
85°	25.0	31.8	26.4	18.0	16.6
87.5°	6.9	10.5	6.0	4.7	4.9
90°	1.0	2.8	7.7	6.7	7.7
92.5°	16.3	59.4	182.5	59.3	47.5
95°	49.8	144.5	646.0	230.1	149.5
97.5°	90.5	190.6	1108.4	670.5	415.6
100°	118.9	214.4	1282.4	1145.2	759.1
102.5°	151.1	244.4	1263.3	1687.5	1308.1
105°	202.2	288.5	1155.0	2194.3	2084.7
107.5°	252.7	331.8	1049.3	2241.7	2362.3
110°	285.6	362.5	998.7	2186.6	2410.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	317.1	391.7	968.1	2090.6	2377.6
115°	364.2	435.4	938.4	1939.0	2276.4
117.5°	410.0	476.6	927.0	1790.0	2132.6
120°	439.9	502.7	924.0	1703.1	2036.8
122.5°	466.8	528.1	924.0	1628.2	1937.9
125°	507.0	565.1	924.9	1529.1	1796.2
127.5°	541.2	600.4	923.8	1456.0	1688.5
130°	562.6	622.6	923.0	1411.8	1621.7
132.5°	581.8	643.3	920.7	1373.8	1564.2
135°	610.6	675.2	917.3	1318.8	1486.6
137.5°	640.8	704.9	915.2	1261.5	1413.2
140°	662.3	724.2	914.4	1225.3	1368.7
142.5°	683.8	741.9	914.4	1186.7	1316.6
145°	714.1	766.5	915.3	1134.4	1243.1
147.5°	745.9	789.6	916.7	1089.0	1171.1
150°	765.8	804.2	918.2	1062.6	1132.0
152.5°	785.8	819.7	919.0	1040.9	1098.2
155°	813.7	840.9	921.1	1015.0	1054.3
157.5°	838.9	858.5	923.2	994.6	1023.1
160°	855.0	870.9	924.0	983.0	1005.4
162.5°	868.8	881.7	924.0	973.6	990.1
165°	888.5	896.9	924.9	960.6	970.9
167.5°	905.2	909.3	926.1	950.6	956.2
170°	914.4	916.3	926.8	945.1	947.0
172.5°	921.3	922.4	929.1	941.2	941.6
175°	928.8	928.8	929.7	936.4	934.5
177.5°	932.6	931.8	931.1	935.6	932.6
180°	932.6	932.6	932.6	932.6	932.6



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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	16.55	17.28	17.63	18.35	19.81	13.04	13.76	14.12	14.84	16.30
	3H	17.87	18.51	18.95	19.59	21.07	14.24	14.88	15.32	15.96	17.44
	4H	18.23	18.85	19.33	19.93	21.41	14.68	15.29	15.77	16.37	17.86
	6H	18.43	18.99	19.53	20.08	21.57	14.99	15.55	16.09	16.63	18.13
	8H	18.46	18.99	19.57	20.09	21.59	15.06	15.59	16.17	16.69	18.18
	12H	18.45	18.96	19.56	20.05	21.57	15.06	15.57	16.18	16.67	18.18
4H	2H	16.64	17.25	17.74	18.33	19.82	13.71	14.32	14.81	15.40	16.89
	3H	18.17	18.68	19.28	19.79	21.29	15.08	15.59	16.19	16.70	18.20
	4H	18.68	19.14	19.79	20.24	21.76	15.62	16.09	16.73	17.19	18.71
	6H	19.00	19.40	20.12	20.52	22.03	16.02	16.42	17.14	17.54	19.05
	8H	19.08	19.45	20.20	20.56	22.09	16.12	16.49	17.24	17.61	19.14
	12H	19.09	19.42	20.22	20.55	22.08	16.14	16.47	17.27	17.60	19.13
8H	4H	18.70	19.08	19.82	20.19	21.72	15.94	16.31	17.06	17.43	18.95
	6H	19.14	19.44	20.28	20.60	22.12	16.44	16.75	17.58	17.90	19.43
	8H	19.28	19.55	20.43	20.69	22.23	16.60	16.87	17.75	18.01	19.55
	12H	19.34	19.58	20.49	20.71	22.29	16.66	16.89	17.81	18.03	19.61
12H	4H	18.66	18.99	19.79	20.12	21.65	15.95	16.29	17.08	17.41	18.94
	6H	19.13	19.39	20.27	20.53	22.08	16.51	16.77	17.65	17.91	19.45
	8H	19.28	19.52	20.43	20.65	22.23	16.69	16.92	17.84	18.05	19.63