

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

(formerly Eaton)

Brand: CORELITE

Report Number: P520173

Luminaire Tested: **SQ4-F-100U-050D-830-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520173
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-17)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-100U-050D-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

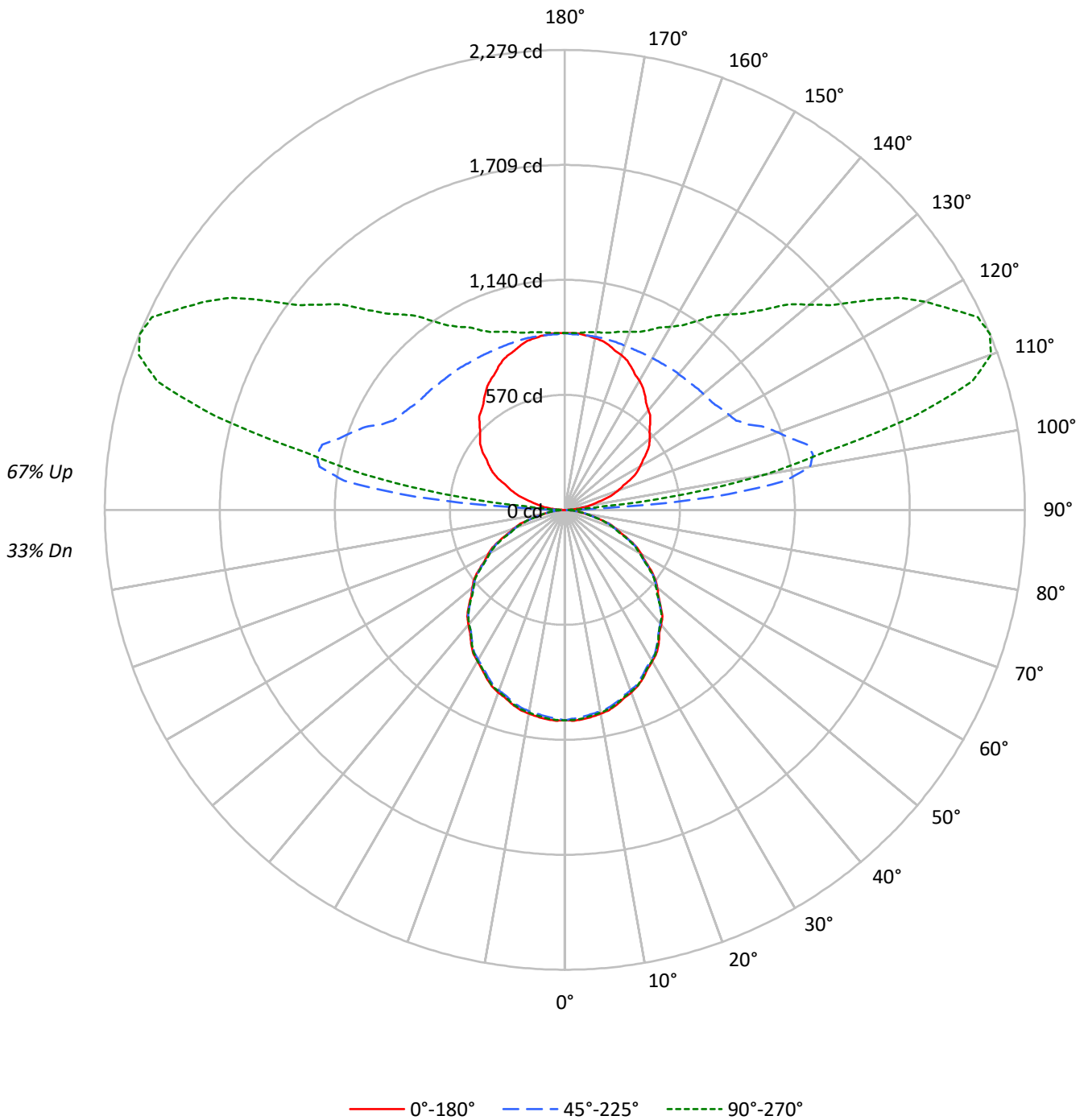
Lumens per Lamp: N/A
Luminaire Lumens: 8534.7 lumens
Efficiency: N/A
Efficacy: 133.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 64
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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	78	72	67	77	71	66	61	57	53	50	44	41	39	32	30	29	23
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25	20
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	39	34	31	31	27	24	22	20	18	15
6	60	48	40	35	54	44	37	32	35	30	27	28	24	21	20	18	16	13
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	20	23	19	17	17	14	13	10
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6415	6415	6415
5°	6431	6353	6405
10°	6409	6331	6374
15°	6365	6285	6338
20°	6305	6232	6278
25°	6234	6159	6215
30°	6148	6098	6138
35°	6080	6007	6038
40°	5963	5907	5919
45°	5841	5793	5793
50°	5718	5664	5638
55°	5584	5509	5480
60°	5376	5290	5255
65°	5120	5018	4959
70°	4769	4669	4570
75°	4280	4147	4047
80°	3461	3411	3315
85°	2068	2364	2463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.4	1.2
10°-20°	280.2	3.3
20°-30°	420.9	4.9
30°-40°	502.4	5.9
40°-50°	514.8	6.0
50°-60°	459.1	5.4
60°-70°	341.9	4.0
70°-80°	185.6	2.2
80°-90°	44.8	0.5
90°-100°	409.9	4.8
100°-110°	1131.5	13.3
110°-120°	1166.9	13.7
120°-130°	937.7	11.0
130°-140°	736.9	8.6
140°-150°	565.2	6.6
150°-160°	406.2	4.8
160°-170°	248.4	2.9
170°-180°	83.8	1.0
0°-30°	799.5	9.4
0°-40°	1301.9	15.3
0°-60°	2275.8	26.7
0°-90°	2848.2	33.4
90°-120°	2708.3	31.7
90°-150°	4948.1	58.0
90°-180°	5686.0	66.6
0°-180°	8534.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1043	1043	1043	1043	1043	
5°	1042	1040	1029	1039	1037	99
15°	1000	997	987	995	995	282
25°	919	916	908	913	916	423
35°	810	807	800	800	804	505
45°	672	673	666	665	666	518
55°	521	521	514	510	511	464
65°	352	350	345	341	341	348
75°	180	179	174	172	170	190
85°	29	32	34	35	35	41
90°	3	6	11	13	14	5
95°	60	222	744	306	199	64
105°	202	311	1245	1900	1790	215
115°	361	436	1003	1985	2257	355
125°	496	564	909	1538	1805	441
135°	596	661	884	1246	1404	462
145°	692	740	872	1060	1141	433
155°	780	806	865	951	982	359
165°	844	855	870	903	910	238
175°	875	876	871	884	881	83
180°	875	875	875	875	875	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1042.9	1042.9	1042.9	1042.9	1042.9
2.5°	1046.2	1044.0	1035.1	1042.9	1041.8
5°	1041.5	1040.1	1029.0	1038.7	1037.3
7.5°	1034.0	1031.2	1020.3	1029.7	1028.4
10°	1026.1	1023.4	1013.6	1021.9	1020.6
12.5°	1016.0	1014.5	1003.5	1011.9	1011.6
15°	999.6	996.9	987.0	995.4	995.4
17.5°	977.9	976.2	966.6	974.7	973.6
20°	963.3	960.6	952.1	959.1	959.1
22.5°	945.4	943.8	935.4	941.3	942.4
25°	918.6	915.9	907.5	913.1	915.8
27.5°	889.0	886.9	879.9	883.5	885.4
30°	865.6	865.6	858.6	860.0	864.2
32.5°	844.4	844.4	836.3	837.7	839.6
35°	809.7	807.0	800.0	800.1	804.1
37.5°	769.5	768.1	763.7	762.8	763.9
40°	742.7	741.3	735.7	737.2	737.2
42.5°	715.9	714.6	709.0	707.0	709.2
45°	671.5	672.9	666.0	664.6	666.0
47.5°	627.7	627.7	622.1	618.3	620.4
50°	597.6	597.6	591.9	589.2	589.2
52.5°	566.3	567.4	560.7	556.8	557.9
55°	520.7	520.7	513.7	509.6	511.0
57.5°	470.4	470.4	463.5	459.4	461.9
60°	437.0	437.0	430.0	425.9	427.2
62.5°	403.5	403.5	396.5	392.4	392.5
65°	351.8	350.4	344.8	340.7	340.7
67.5°	302.1	298.6	294.3	288.7	288.7
70°	265.2	263.9	259.6	254.1	254.1
72.5°	231.7	229.3	225.0	220.6	220.6
75°	180.1	178.8	174.5	171.7	170.3
77.5°	129.0	127.9	127.6	123.8	124.8
80°	97.7	97.7	96.3	93.6	93.6
82.5°	69.8	70.9	68.4	67.8	66.8
85°	29.3	32.0	33.5	34.9	34.9
87.5°	6.1	10.0	10.1	11.4	11.7
90°	2.8	5.5	11.2	12.7	14.0
92.5°	25.2	104.7	187.1	68.3	53.2
95°	60.2	221.8	743.6	305.7	198.8
97.5°	99.7	248.4	1101.5	848.1	614.2
100°	128.8	264.4	1233.7	1242.4	1009.6
102.5°	156.8	282.5	1259.4	1535.0	1314.3
105°	201.6	311.2	1244.8	1900.5	1789.6
107.5°	249.3	346.7	1175.4	2076.7	2117.2
110°	282.8	370.5	1121.7	2114.7	2246.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	313.1	397.5	1071.2	2084.7	2278.6
115°	361.3	436.5	1002.6	1984.8	2257.3
117.5°	403.3	478.3	957.6	1844.2	2154.2
120°	431.3	505.2	939.6	1749.0	2061.2
122.5°	458.2	528.8	925.0	1660.2	1955.9
125°	495.7	564.2	908.8	1537.9	1804.9
127.5°	527.6	596.1	899.3	1434.7	1665.0
130°	548.9	617.4	894.7	1371.5	1581.0
132.5°	569.1	634.3	890.3	1318.3	1508.1
135°	596.5	660.9	883.6	1245.6	1404.5
137.5°	627.4	685.9	880.2	1184.7	1320.2
140°	644.2	701.7	877.9	1143.9	1263.0
142.5°	663.2	716.3	875.8	1107.7	1212.7
145°	691.8	739.6	872.4	1060.4	1141.3
147.5°	719.2	761.1	869.3	1020.6	1083.3
150°	739.3	773.6	868.1	996.7	1047.4
152.5°	755.1	787.1	867.0	976.4	1018.3
155°	780.0	806.0	865.4	951.4	981.6
157.5°	802.9	822.9	865.7	933.3	953.9
160°	816.4	834.2	866.8	923.1	938.2
162.5°	827.6	843.2	867.9	914.1	925.9
165°	844.4	855.3	869.6	903.4	910.2
167.5°	857.3	863.8	871.0	896.8	899.0
170°	864.0	869.4	871.0	893.4	893.4
172.5°	869.6	872.9	871.0	888.9	887.8
175°	875.2	876.5	871.0	883.5	880.8
177.5°	877.4	876.3	870.7	878.5	876.3
180°	875.2	875.2	875.2	875.2	875.2

(END OF REPORT)