

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P489049

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1LO-27-120-EDD**

Issue Date: 3/11/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P489049
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-24-2-INS-A19156-LD4-1LO-27-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1225.0 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

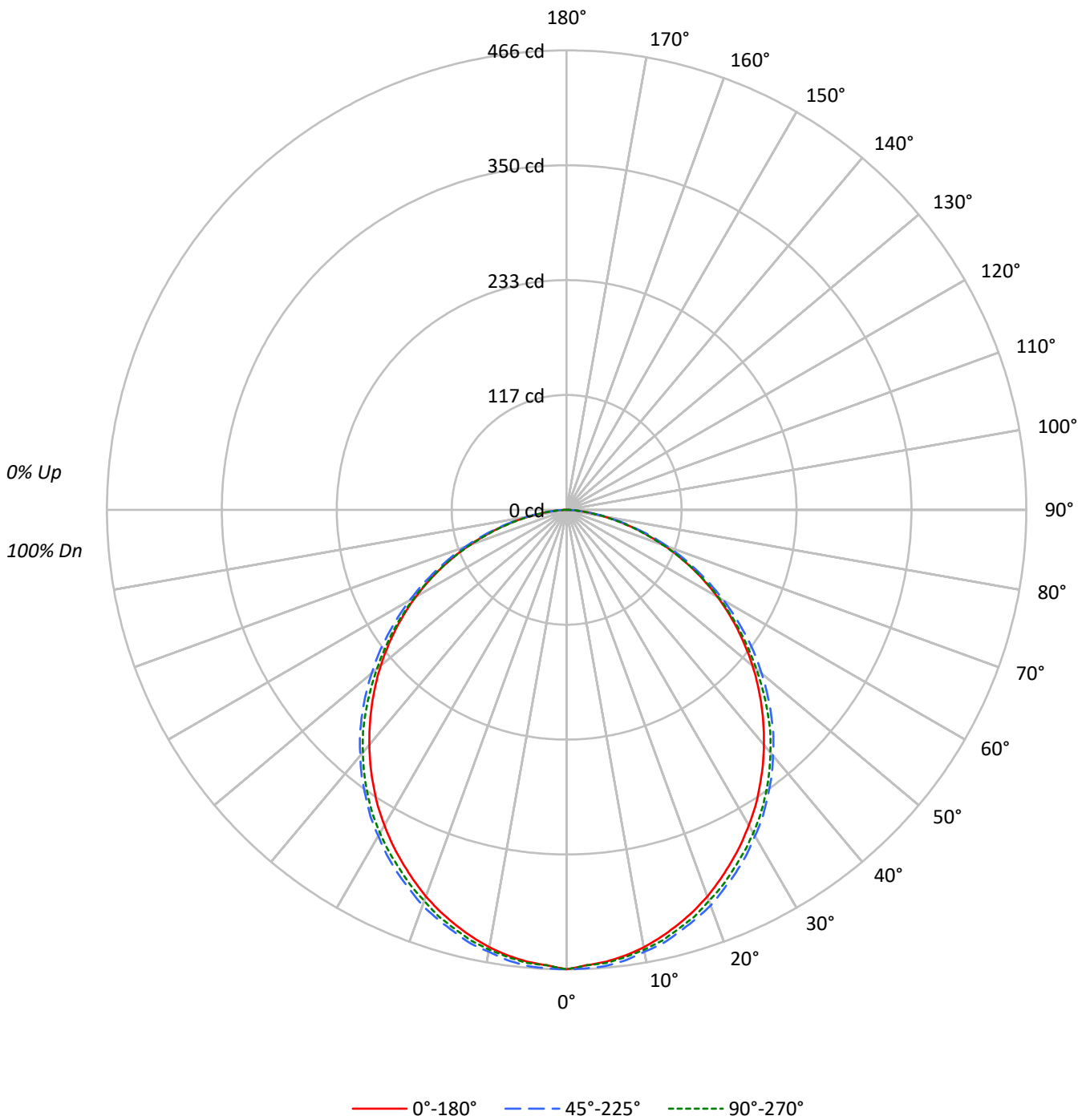
Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1254	1254	1254
5°	1242	1254	1246
10°	1231	1243	1237
15°	1214	1233	1225
20°	1195	1223	1208
25°	1171	1205	1192
30°	1148	1187	1176
35°	1122	1167	1156
40°	1093	1143	1129
45°	1062	1116	1094
50°	1030	1080	1052
55°	993	1039	1007
60°	950	990	960
65°	896	930	897
70°	825	858	815
75°	726	759	714
80°	590	615	583
85°	411	438	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.9	3.6
10°-20°	124.4	10.2
20°-30°	185.5	15.1
30°-40°	219.8	17.9
40°-50°	222.4	18.2
50°-60°	194.2	15.9
60°-70°	141.9	11.6
70°-80°	75.5	6.2
80°-90°	17.5	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	353.7	28.9
0°-40°	573.5	46.8
0°-60°	990.1	80.8
0°-90°	1225.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1225.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	460	461	464	465	461	44
15°	436	439	443	445	440	123
25°	394	399	406	408	401	182
35°	342	347	355	358	352	214
45°	279	284	293	293	288	215
55°	212	216	222	218	215	189
65°	141	144	146	143	141	139
75°	70	71	73	70	69	74
85°	13	14	14	14	14	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	465.9	465.9	465.9	465.9	465.9
2.5°	462.3	463.8	465.4	466.0	462.3
5°	459.9	460.8	464.2	465.3	461.3
7.5°	455.9	457.2	460.6	461.0	457.3
10°	450.5	452.8	455.0	457.5	452.8
12.5°	443.5	446.7	450.5	450.9	447.4
15°	435.7	438.6	442.7	445.4	439.6
17.5°	427.0	429.8	435.1	435.6	432.1
20°	417.2	420.7	427.1	428.2	422.0
22.5°	406.1	410.8	416.2	417.3	412.6
25°	394.5	399.4	406.0	407.5	401.3
27.5°	382.4	387.1	394.5	395.6	390.4
30°	369.4	373.8	381.9	383.7	378.4
32.5°	356.2	360.6	369.6	371.1	365.9
35°	341.5	346.9	355.1	357.5	351.8
37.5°	326.6	331.8	341.1	343.3	337.1
40°	311.1	316.2	325.4	327.2	321.3
42.5°	295.3	300.4	310.2	310.5	305.5
45°	279.1	284.0	293.2	293.4	287.6
47.5°	262.7	267.7	275.8	274.9	269.5
50°	246.1	250.8	258.0	256.1	251.2
52.5°	228.9	233.5	240.3	237.2	232.6
55°	211.6	215.9	221.5	218.3	214.7
57.5°	194.2	198.5	202.8	199.6	196.5
60°	176.6	180.4	183.9	180.6	178.3
62.5°	158.7	162.0	165.1	161.9	159.7
65°	140.7	143.6	146.1	143.2	140.8
67.5°	122.7	125.2	127.5	124.5	122.0
70°	104.8	106.9	109.0	105.9	103.6
72.5°	87.0	88.9	90.8	87.8	85.8
75°	69.8	71.4	73.0	70.3	68.7
77.5°	53.4	54.7	55.8	54.1	52.6
80°	38.1	39.1	39.7	39.0	37.6
82.5°	24.5	25.2	25.5	25.5	24.6
85°	13.3	13.5	14.2	14.3	13.8
87.5°	5.1	5.5	5.6	6.1	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)