

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: P489058

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-20-120-EDD-90**

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: P489058
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-LD4-1STD-20-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

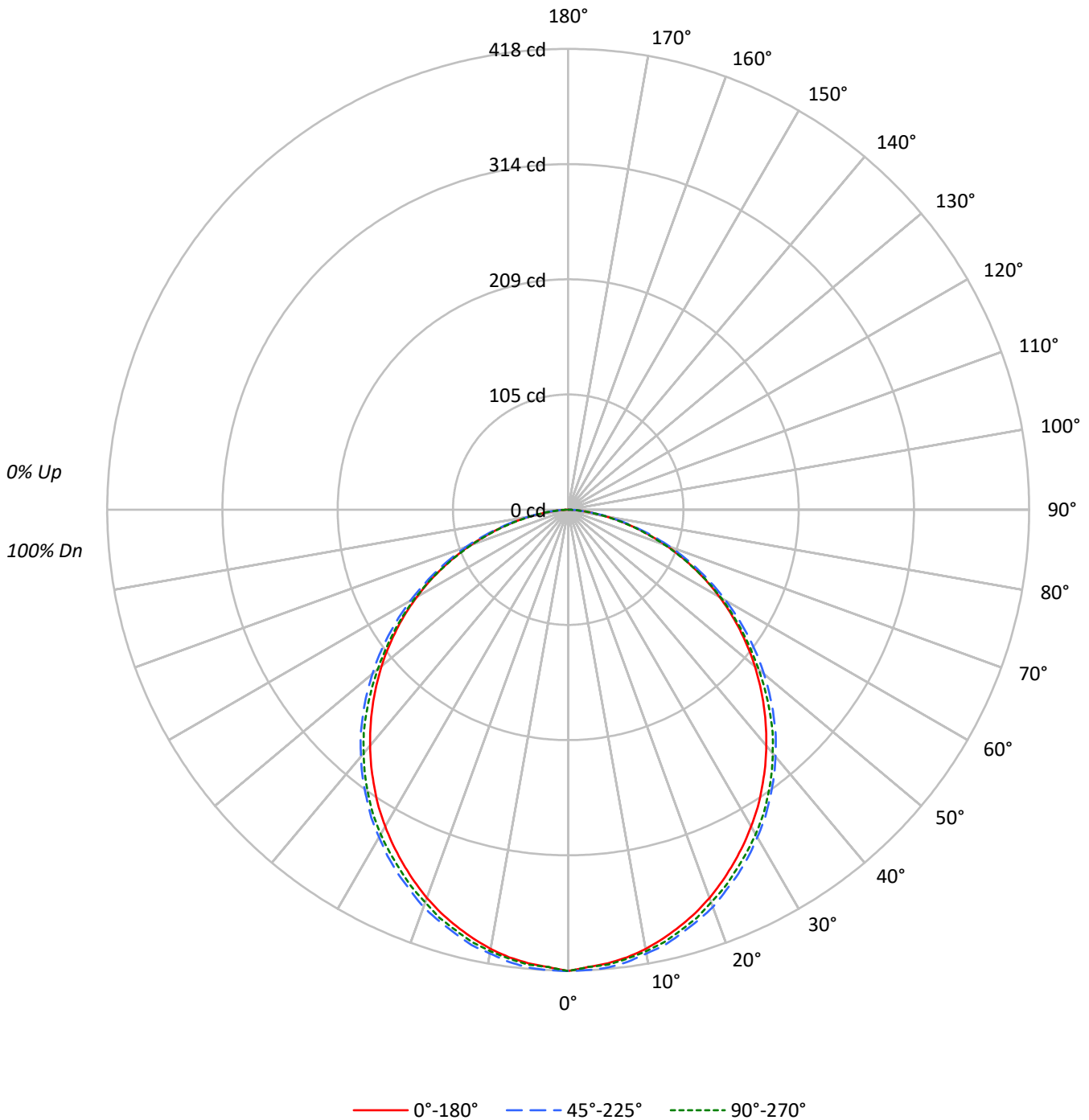
Lumens per Lamp: N/A
Luminaire Lumens: 1100.2 lumens
Efficiency: N/A
Efficacy: 66.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	1126	1126	1126
5°	1116	1126	1119
10°	1106	1117	1111
15°	1090	1108	1100
20°	1073	1099	1085
25°	1052	1083	1070
30°	1031	1066	1056
35°	1008	1048	1038
40°	981	1027	1013
45°	954	1002	983
50°	925	970	944
55°	892	933	905
60°	854	889	862
65°	805	835	805
70°	740	770	732
75°	652	681	642
80°	530	553	524
85°	367	392	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	3.6
10°-20°	111.7	10.2
20°-30°	166.6	15.1
30°-40°	197.4	17.9
40°-50°	199.7	18.2
50°-60°	174.4	15.9
60°-70°	127.5	11.6
70°-80°	67.8	6.2
80°-90°	15.7	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°	317.7	28.9
0°-40°	515.1	46.8
0°-60°	889.2	80.8
0°-90°	1100.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1100.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	413	414	417	418	414	39
15°	391	394	398	400	395	110
25°	354	359	365	366	360	163
35°	307	312	319	321	316	192
45°	251	255	263	264	258	193
55°	190	194	199	196	193	170
65°	126	129	131	129	126	125
75°	63	64	66	63	62	67
85°	12	12	13	13	12	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	418.5	418.5	418.5	418.5	418.5
2.5°	415.2	416.6	418.0	418.6	415.2
5°	413.0	413.8	416.9	417.9	414.3
7.5°	409.5	410.6	413.6	414.1	410.7
10°	404.6	406.7	408.7	410.8	406.7
12.5°	398.3	401.2	404.6	405.0	401.8
15°	391.3	393.9	397.6	400.0	394.8
17.5°	383.5	386.0	390.8	391.2	388.1
20°	374.7	377.8	383.6	384.6	379.0
22.5°	364.8	369.0	373.8	374.7	370.6
25°	354.3	358.7	364.6	366.0	360.4
27.5°	343.4	347.6	354.3	355.3	350.6
30°	331.8	335.7	343.0	344.6	339.9
32.5°	319.9	323.8	331.9	333.3	328.7
35°	306.7	311.5	318.9	321.1	315.9
37.5°	293.3	298.0	306.3	308.3	302.8
40°	279.4	284.0	292.3	293.9	288.5
42.5°	265.2	269.8	278.6	278.9	274.4
45°	250.7	255.1	263.3	263.5	258.3
47.5°	235.9	240.4	247.7	246.9	242.0
50°	221.0	225.3	231.7	230.0	225.6
52.5°	205.6	209.7	215.8	213.1	208.9
55°	190.1	193.9	198.9	196.1	192.8
57.5°	174.4	178.3	182.2	179.2	176.5
60°	158.6	162.0	165.2	162.2	160.1
62.5°	142.6	145.5	148.2	145.4	143.4
65°	126.4	128.9	131.2	128.6	126.4
67.5°	110.2	112.4	114.5	111.8	109.6
70°	94.1	96.0	97.9	95.1	93.0
72.5°	78.2	79.8	81.5	78.8	77.0
75°	62.7	64.1	65.5	63.1	61.7
77.5°	47.9	49.1	50.1	48.6	47.2
80°	34.2	35.1	35.7	35.1	33.8
82.5°	22.0	22.6	22.9	22.9	22.1
85°	11.9	12.2	12.7	12.9	12.4
87.5°	4.6	4.9	5.1	5.5	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)