

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: P489047

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1LO-20-120-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: P489047
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-20-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

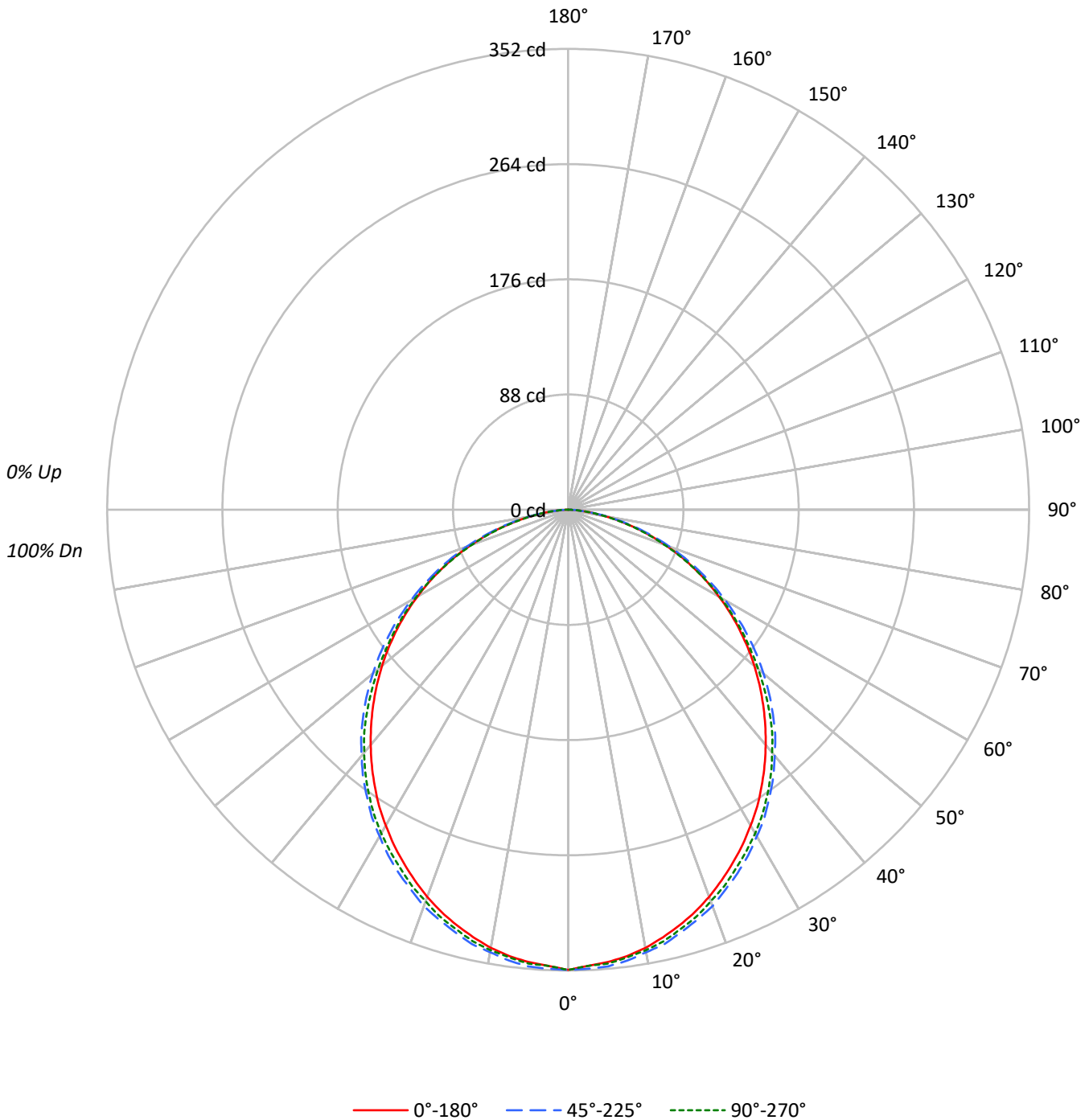
Lumens per Lamp: N/A
Luminaire Lumens: 924.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	946	946	946
5°	937	946	940
10°	929	938	933
15°	915	930	924
20°	901	923	912
25°	884	909	899
30°	866	895	887
35°	846	880	872
40°	824	862	851
45°	801	841	826
50°	777	815	793
55°	749	784	760
60°	717	746	724
65°	676	702	676
70°	622	647	614
75°	548	572	540
80°	445	465	440
85°	309	330	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	3.6
10°-20°	93.8	10.2
20°-30°	139.9	15.1
30°-40°	165.8	17.9
40°-50°	167.7	18.2
50°-60°	146.5	15.9
60°-70°	107.1	11.6
70°-80°	57.0	6.2
80°-90°	13.2	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°	266.8	28.9
0°-40°	432.6	46.8
0°-60°	746.8	80.8
0°-90°	924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	924.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	352	352	352	352	352	
5°	347	348	350	351	348	33
15°	329	331	334	336	332	93
25°	298	301	306	307	303	137
35°	258	262	268	270	265	161
45°	210	214	221	221	217	162
55°	160	163	167	165	162	143
65°	106	108	110	108	106	105
75°	53	54	55	53	52	56
85°	10	10	11	11	10	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	351.5	351.5	351.5	351.5	351.5
2.5°	348.7	349.8	351.0	351.5	348.7
5°	346.9	347.5	350.1	350.9	348.0
7.5°	343.9	344.9	347.4	347.8	344.9
10°	339.8	341.5	343.2	345.0	341.6
12.5°	334.5	336.9	339.8	340.1	337.5
15°	328.6	330.8	334.0	336.0	331.6
17.5°	322.1	324.2	328.2	328.6	325.9
20°	314.7	317.3	322.2	323.0	318.3
22.5°	306.3	309.9	313.9	314.7	311.3
25°	297.6	301.3	306.2	307.4	302.7
27.5°	288.4	292.0	297.6	298.4	294.4
30°	278.6	281.9	288.1	289.4	285.4
32.5°	268.7	272.0	278.8	279.9	276.0
35°	257.6	261.6	267.8	269.7	265.3
37.5°	246.3	250.2	257.3	259.0	254.3
40°	234.6	238.5	245.4	246.8	242.3
42.5°	222.7	226.6	234.0	234.2	230.5
45°	210.5	214.3	221.1	221.3	217.0
47.5°	198.1	201.9	208.1	207.4	203.3
50°	185.6	189.2	194.6	193.2	189.5
52.5°	172.7	176.1	181.2	179.0	175.5
55°	159.6	162.8	167.1	164.7	162.0
57.5°	146.5	149.7	153.0	150.5	148.2
60°	133.2	136.1	138.7	136.3	134.5
62.5°	119.7	122.2	124.5	122.1	120.4
65°	106.1	108.3	110.2	108.0	106.2
67.5°	92.6	94.4	96.2	93.9	92.0
70°	79.0	80.6	82.2	79.9	78.1
72.5°	65.7	67.0	68.5	66.2	64.7
75°	52.7	53.9	55.0	53.0	51.9
77.5°	40.2	41.3	42.1	40.8	39.7
80°	28.7	29.5	30.0	29.4	28.4
82.5°	18.5	19.0	19.3	19.2	18.5
85°	10.0	10.2	10.7	10.8	10.4
87.5°	3.9	4.1	4.2	4.6	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)