

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: P488439

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2LO-30-120-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: P488439  
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-12-2-INS-A19156-LD4-2LO-30-120-EDD  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

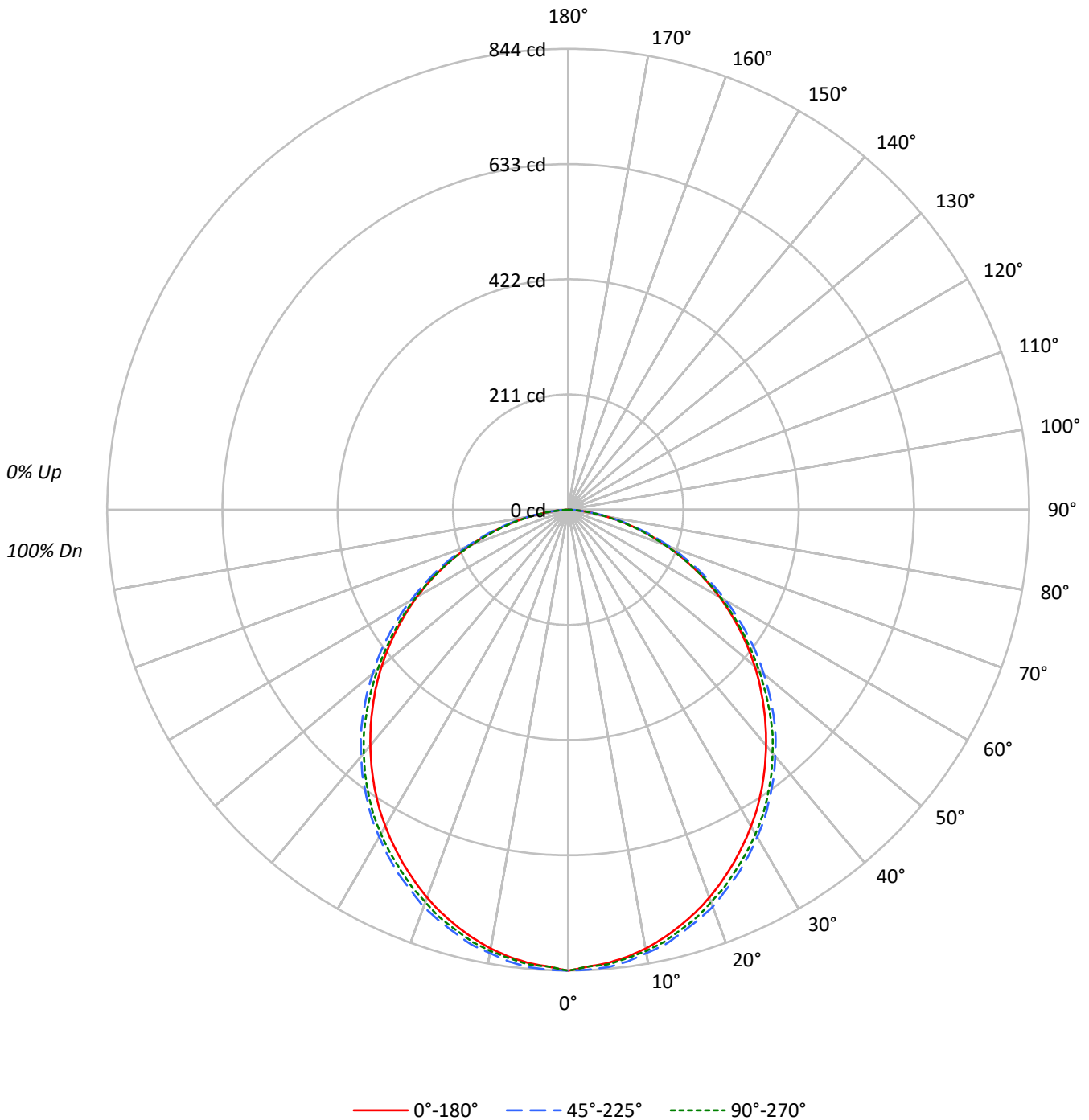
Lumens per Lamp: N/A  
Luminaire Lumens: 2219.6 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	4544	4544	4544
5°	4502	4544	4516
10°	4461	4506	4484
15°	4399	4470	4439
20°	4329	4432	4379
25°	4245	4368	4318
30°	4159	4300	4261
35°	4066	4227	4188
40°	3960	4142	4090
45°	3849	4043	3967
50°	3733	3913	3811
55°	3598	3766	3651
60°	3444	3588	3477
65°	3246	3371	3249
70°	2987	3108	2954
75°	2630	2749	2591
80°	2139	2232	2114
85°	1488	1587	1550



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.5	3.6
10°-20°	225.3	10.2
20°-30°	336.1	15.1
30°-40°	398.2	17.9
40°-50°	402.9	18.2
50°-60°	351.9	15.9
60°-70°	257.2	11.6
70°-80°	136.8	6.2
80°-90°	31.6	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°	640.9	28.9
0°-40°	1039.1	46.8
0°-60°	1794.0	80.8
0°-90°	2219.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2219.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	833	835	841	843	836	79
15°	790	795	802	807	797	223
25°	715	724	736	738	727	329
35°	619	628	643	648	637	387
45°	506	515	531	532	521	390
55°	383	391	401	396	389	343
65°	255	260	265	259	255	252
75°	126	129	132	127	125	134
85°	24	24	26	26	25	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	844.3	844.3	844.3	844.3	844.3
2.5°	837.7	840.4	843.2	844.4	837.6
5°	833.3	834.8	841.1	843.0	835.9
7.5°	826.0	828.4	834.5	835.4	828.5
10°	816.2	820.4	824.5	828.9	820.5
12.5°	803.6	809.3	816.2	817.0	810.7
15°	789.5	794.7	802.2	807.0	796.6
17.5°	773.6	778.7	788.4	789.3	782.9
20°	755.9	762.3	773.9	775.9	764.6
22.5°	735.9	744.4	754.1	756.0	747.7
25°	714.9	723.7	735.6	738.4	727.2
27.5°	692.9	701.3	714.8	716.7	707.3
30°	669.3	677.2	692.0	695.2	685.7
32.5°	645.4	653.3	669.7	672.4	663.1
35°	618.8	628.5	643.4	647.8	637.4
37.5°	591.7	601.1	618.0	622.1	610.8
40°	563.7	573.0	589.6	593.0	582.1
42.5°	535.0	544.3	562.1	562.6	553.6
45°	505.7	514.7	531.2	531.6	521.2
47.5°	476.0	485.0	499.8	498.1	488.3
50°	445.9	454.5	467.4	464.1	455.2
52.5°	414.7	423.1	435.3	429.9	421.5
55°	383.4	391.2	401.4	395.6	389.1
57.5°	351.8	359.7	367.5	361.6	356.0
60°	320.0	326.9	333.3	327.3	323.0
62.5°	287.6	293.5	299.1	293.4	289.3
65°	254.9	260.1	264.7	259.4	255.1
67.5°	222.4	226.8	231.0	225.5	221.0
70°	189.8	193.6	197.5	191.8	187.7
72.5°	157.7	161.1	164.5	159.0	155.4
75°	126.5	129.4	132.2	127.4	124.6
77.5°	96.7	99.1	101.1	98.0	95.3
80°	69.0	70.8	72.0	70.7	68.2
82.5°	44.3	45.7	46.3	46.2	44.5
85°	24.1	24.5	25.7	25.9	25.1
87.5°	9.3	9.9	10.2	11.0	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)