

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: P488719

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3HI-40-120-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: P488719  
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-12-4-INS-A19156-LD4-3HI-40-120-EDD  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

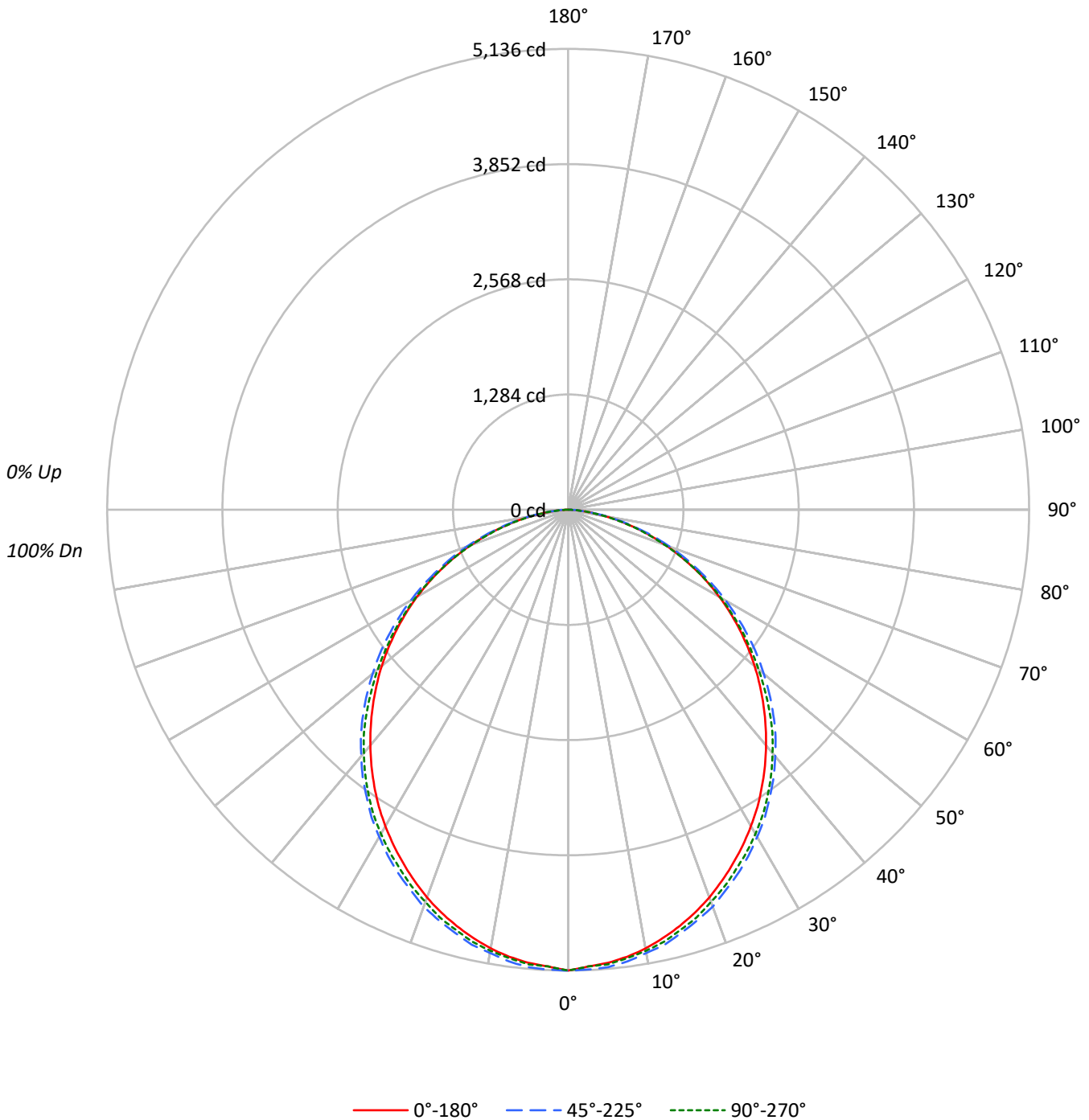
Lumens per Lamp: N/A  
Luminaire Lumens: 13503.7 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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°	13822	13822	13822
5°	13694	13823	13737
10°	13568	13706	13640
15°	13380	13597	13501
20°	13170	13483	13320
25°	12913	13288	13136
30°	12653	13082	12962
35°	12367	12858	12739
40°	12046	12601	12441
45°	11708	12299	12066
50°	11357	11905	11594
55°	10944	11456	11104
60°	10478	10913	10576
65°	9875	10253	9882
70°	9086	9452	8985
75°	8001	8362	7879
80°	6502	6783	6426
85°	4526	4826	4709



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	483.7	3.6
10°-20°	1370.8	10.2
20°-30°	2044.5	15.1
30°-40°	2422.8	17.9
40°-50°	2451.5	18.2
50°-60°	2141.0	15.9
60°-70°	1564.5	11.6
70°-80°	832.5	6.2
80°-90°	192.4	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°	3899.1	28.9
0°-40°	6321.8	46.8
0°-60°	10914.3	80.8
0°-90°	13503.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13503.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5136	5136	5136	5136	5136	
5°	5069	5079	5117	5129	5086	481
15°	4803	4835	4880	4910	4846	1354
25°	4349	4403	4475	4492	4424	2004
35°	3765	3824	3914	3941	3878	2354
45°	3077	3131	3232	3234	3171	2373
55°	2333	2380	2442	2406	2367	2085
65°	1551	1582	1610	1578	1552	1535
75°	770	787	804	775	758	818
85°	147	149	156	158	152	186
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5136.3	5136.3	5136.3	5136.3	5136.3
2.5°	5096.2	5112.8	5129.9	5137.4	5095.7
5°	5069.4	5079.1	5117.1	5128.8	5085.5
7.5°	5025.6	5040.0	5076.9	5082.3	5040.5
10°	4965.6	4991.3	5015.9	5042.7	4991.8
12.5°	4889.1	4923.9	4965.6	4970.4	4931.9
15°	4802.9	4835.0	4880.5	4910.0	4846.3
17.5°	4706.6	4737.6	4796.5	4801.9	4763.3
20°	4599.0	4637.6	4708.2	4720.5	4651.5
22.5°	4477.0	4528.9	4587.8	4599.6	4548.7
25°	4349.1	4402.6	4475.4	4492.0	4424.0
27.5°	4215.3	4266.7	4348.6	4360.4	4303.1
30°	4071.9	4120.1	4210.0	4229.8	4171.5
32.5°	3926.4	3974.5	4074.1	4090.7	4033.9
35°	3764.7	3823.6	3914.1	3941.3	3877.7
37.5°	3599.9	3657.2	3759.9	3784.5	3716.1
40°	3429.2	3485.9	3587.1	3607.4	3541.6
42.5°	3254.8	3311.5	3419.6	3422.8	3368.2
45°	3076.6	3131.1	3231.7	3234.4	3170.7
47.5°	2895.7	2950.8	3040.7	3030.5	2970.6
50°	2712.7	2765.1	2843.8	2823.4	2769.4
52.5°	2523.2	2574.1	2648.4	2615.3	2564.4
55°	2332.7	2379.8	2441.9	2406.5	2366.9
57.5°	2140.6	2188.2	2235.8	2200.0	2165.7
60°	1946.9	1988.6	2027.7	1991.3	1965.1
62.5°	1749.9	1785.8	1819.5	1784.7	1760.1
65°	1550.9	1582.4	1610.3	1578.1	1551.9
67.5°	1352.8	1379.6	1405.3	1372.1	1344.8
70°	1154.8	1177.9	1201.4	1167.2	1142.0
72.5°	959.5	979.9	1000.7	967.5	945.6
75°	769.5	787.2	804.3	774.9	757.8
77.5°	588.1	603.1	614.9	596.2	579.6
80°	419.6	430.8	437.7	430.3	414.7
82.5°	269.7	277.7	281.5	281.0	270.8
85°	146.6	149.3	156.3	157.9	152.5
87.5°	56.7	60.5	62.1	66.9	61.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)