

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: P488721

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3HI-50-120-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: P488721  
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-50-120-EDD  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

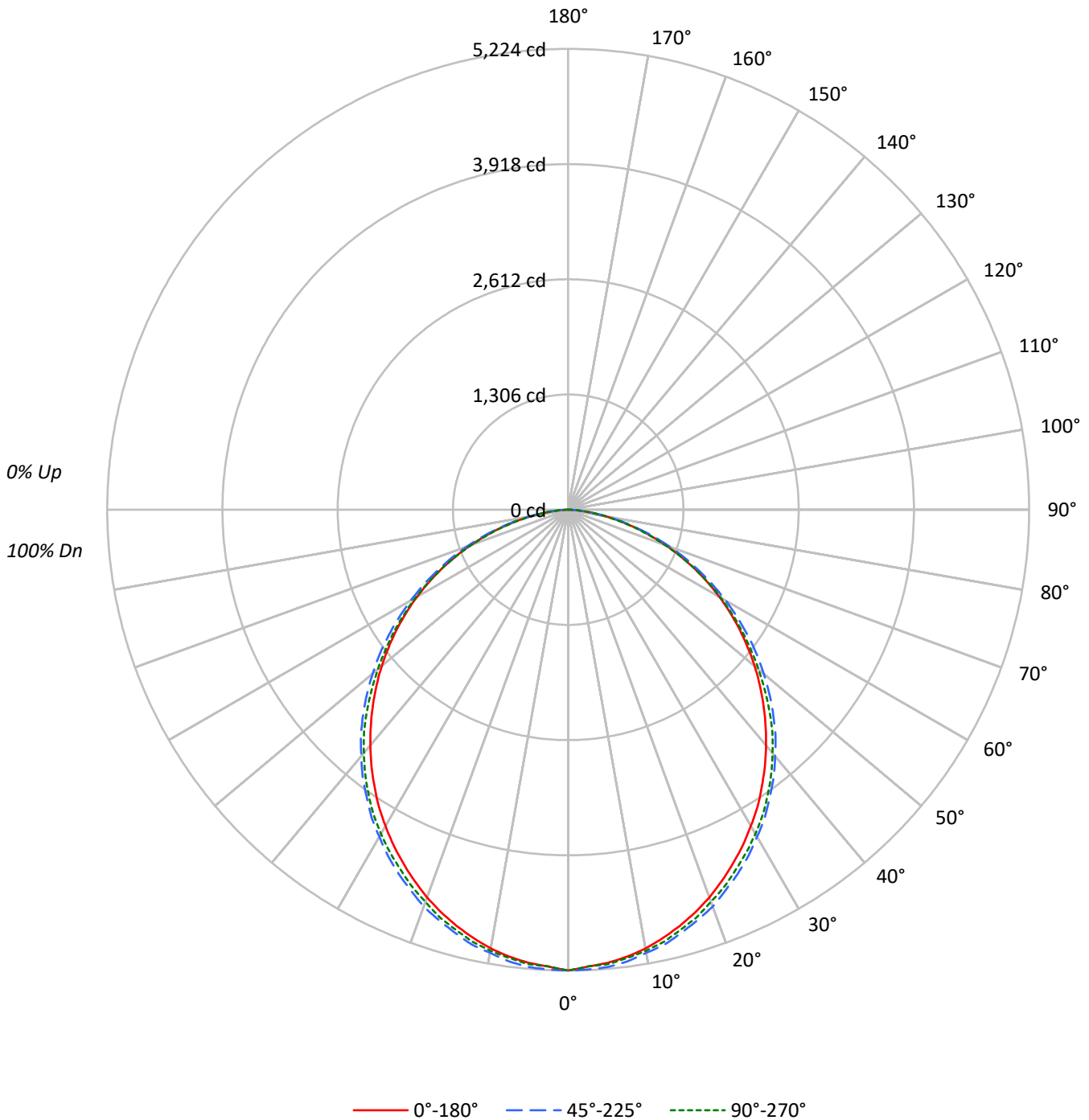
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13732.8 lumens  
Efficiency: N/A  
Efficacy: 106.0 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°	14056	14056	14056
5°	13926	14057	13970
10°	13799	13938	13871
15°	13607	13827	13730
20°	13394	13712	13546
25°	13132	13514	13359
30°	12867	13303	13182
35°	12577	13076	12955
40°	12251	12814	12652
45°	11907	12508	12271
50°	11549	12107	11791
55°	11130	11651	11293
60°	10656	11098	10755
65°	10043	10427	10050
70°	9240	9613	9138
75°	8137	8505	8012
80°	6612	6899	6537
85°	4604	4906	4789



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	491.9	3.6
10°-20°	1394.1	10.2
20°-30°	2079.2	15.1
30°-40°	2463.9	17.9
40°-50°	2493.1	18.2
50°-60°	2177.3	15.9
60°-70°	1591.1	11.6
70°-80°	846.6	6.2
80°-90°	195.7	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°	3965.2	28.9
0°-40°	6429.1	46.8
0°-60°	11099.5	80.8
0°-90°	13732.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13732.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5224	5224	5224	5224	5224	
5°	5155	5165	5204	5216	5172	489
15°	4884	4917	4963	4993	4928	1377
25°	4423	4477	4551	4568	4499	2038
35°	3829	3888	3980	4008	3944	2394
45°	3129	3184	3287	3289	3224	2414
55°	2372	2420	2483	2447	2407	2121
65°	1577	1609	1638	1605	1578	1561
75°	783	801	818	788	771	832
85°	149	152	159	160	155	189
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5223.5	5223.5	5223.5	5223.5	5223.5
2.5°	5182.7	5199.5	5216.9	5224.6	5182.1
5°	5155.4	5165.2	5203.9	5215.8	5171.8
7.5°	5110.8	5125.5	5163.1	5168.5	5126.1
10°	5049.9	5076.0	5101.0	5128.2	5076.5
12.5°	4972.0	5007.4	5049.9	5054.8	5015.6
15°	4884.4	4917.1	4963.3	4993.3	4928.5
17.5°	4786.5	4818.0	4877.9	4883.3	4844.1
20°	4677.1	4716.3	4788.1	4800.6	4730.4
22.5°	4553.0	4605.8	4665.6	4677.6	4625.9
25°	4422.9	4477.3	4551.4	4568.2	4499.1
27.5°	4286.9	4339.1	4422.4	4434.3	4376.1
30°	4141.0	4190.0	4281.4	4301.6	4242.2
32.5°	3993.0	4042.0	4143.2	4160.1	4102.4
35°	3828.6	3888.5	3980.5	4008.2	3943.5
37.5°	3661.0	3719.2	3823.7	3848.8	3779.1
40°	3487.4	3545.1	3647.9	3668.6	3601.7
42.5°	3310.0	3367.7	3477.6	3480.9	3425.4
45°	3128.7	3184.3	3286.6	3289.3	3224.5
47.5°	2944.8	3000.9	3092.3	3081.9	3021.0
50°	2758.7	2812.0	2892.0	2871.3	2816.4
52.5°	2566.0	2617.7	2693.4	2659.6	2607.9
55°	2372.3	2420.2	2483.3	2447.4	2407.1
57.5°	2176.9	2225.3	2273.8	2237.3	2202.5
60°	1979.9	2022.3	2062.1	2025.1	1998.4
62.5°	1779.6	1816.1	1850.4	1815.0	1790.0
65°	1577.2	1609.3	1637.6	1604.9	1578.3
67.5°	1375.8	1403.0	1429.1	1395.4	1367.6
70°	1174.4	1197.8	1221.8	1187.0	1161.4
72.5°	975.8	996.5	1017.7	984.0	961.6
75°	782.6	800.6	818.0	788.0	770.6
77.5°	598.1	613.3	625.3	606.3	589.4
80°	426.7	438.1	445.2	437.6	421.8
82.5°	274.3	282.5	286.3	285.7	275.4
85°	149.1	151.8	158.9	160.5	155.1
87.5°	57.7	61.5	63.1	68.0	62.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)