

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: P488422

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2HI-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: P488422  
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-LD4-2HI-20-120-EDD-90  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

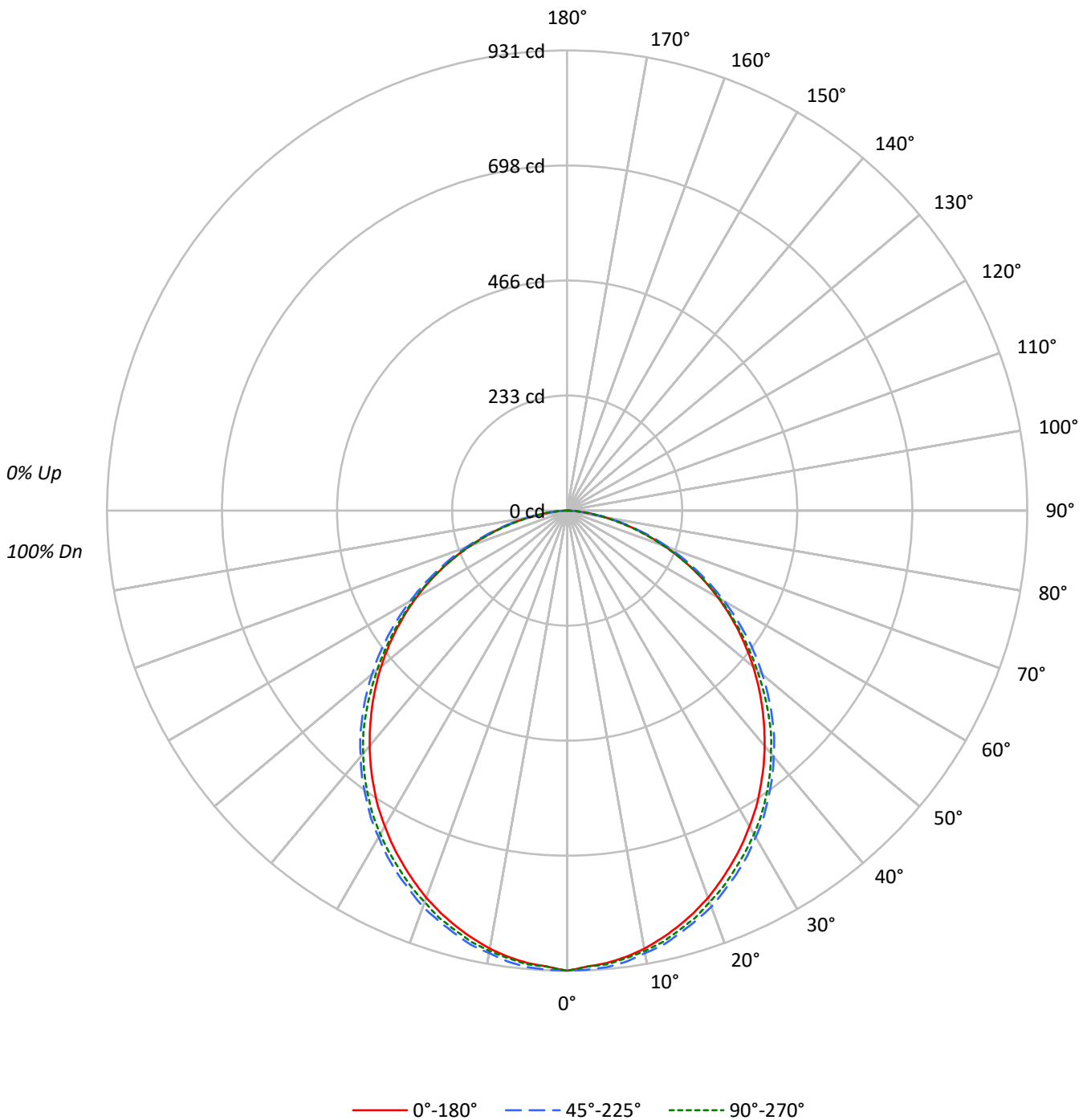
Lumens per Lamp: N/A  
Luminaire Lumens: 2447.2 lumens  
Efficiency: N/A  
Efficacy: 56.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5010	5010	5010
5°	4963	5010	4979
10°	4918	4968	4944
15°	4850	4928	4894
20°	4774	4887	4828
25°	4681	4817	4761
30°	4586	4742	4698
35°	4483	4660	4617
40°	4366	4567	4509
45°	4243	4458	4373
50°	4116	4315	4202
55°	3966	4152	4024
60°	3798	3956	3833
65°	3580	3716	3581
70°	3294	3426	3257
75°	2901	3032	2855
80°	2356	2458	2331
85°	1643	1748	1704



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.7	3.6
10°-20°	248.4	10.2
20°-30°	370.5	15.1
30°-40°	439.1	17.9
40°-50°	444.3	18.2
50°-60°	388.0	15.9
60°-70°	283.5	11.6
70°-80°	150.9	6.2
80°-90°	34.9	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°	706.6	28.9
0°-40°	1145.7	46.8
0°-60°	1977.9	80.8
0°-90°	2447.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2447.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	931	931	931	931	931	
5°	919	920	927	930	922	87
15°	870	876	884	890	878	245
25°	788	798	811	814	802	363
35°	682	693	709	714	703	427
45°	558	567	586	586	575	430
55°	423	431	442	436	429	378
65°	281	287	292	286	281	278
75°	140	143	146	140	137	148
85°	27	27	28	29	28	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	930.8	930.8	930.8	930.8	930.8
2.5°	923.6	926.6	929.7	931.0	923.5
5°	918.7	920.5	927.3	929.5	921.6
7.5°	910.8	913.4	920.1	921.0	913.5
10°	899.9	904.5	909.0	913.9	904.6
12.5°	886.0	892.3	899.9	900.8	893.8
15°	870.4	876.2	884.5	889.8	878.3
17.5°	853.0	858.6	869.2	870.2	863.2
20°	833.5	840.4	853.2	855.5	843.0
22.5°	811.3	820.8	831.4	833.6	824.3
25°	788.2	797.9	811.1	814.1	801.7
27.5°	763.9	773.2	788.1	790.2	779.8
30°	737.9	746.7	763.0	766.5	756.0
32.5°	711.6	720.3	738.3	741.3	731.0
35°	682.3	692.9	709.3	714.3	702.7
37.5°	652.4	662.8	681.4	685.9	673.4
40°	621.5	631.7	650.1	653.8	641.8
42.5°	589.8	600.1	619.7	620.3	610.4
45°	557.5	567.4	585.7	586.2	574.6
47.5°	524.8	534.8	551.0	549.2	538.3
50°	491.6	501.1	515.4	511.7	501.9
52.5°	457.3	466.5	480.0	473.9	464.7
55°	422.7	431.3	442.5	436.1	428.9
57.5°	387.9	396.6	405.2	398.7	392.5
60°	352.8	360.4	367.5	360.9	356.1
62.5°	317.1	323.6	329.7	323.4	319.0
65°	281.1	286.8	291.8	286.0	281.2
67.5°	245.2	250.0	254.7	248.7	243.7
70°	209.3	213.5	217.7	211.5	207.0
72.5°	173.9	177.6	181.4	175.3	171.4
75°	139.5	142.7	145.8	140.4	137.3
77.5°	106.6	109.3	111.4	108.0	105.0
80°	76.0	78.1	79.3	78.0	75.2
82.5°	48.9	50.3	51.0	50.9	49.1
85°	26.6	27.1	28.3	28.6	27.6
87.5°	10.3	11.0	11.2	12.1	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)