

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: P488443

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2LO-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: P488443  
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-40-120-EDD  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

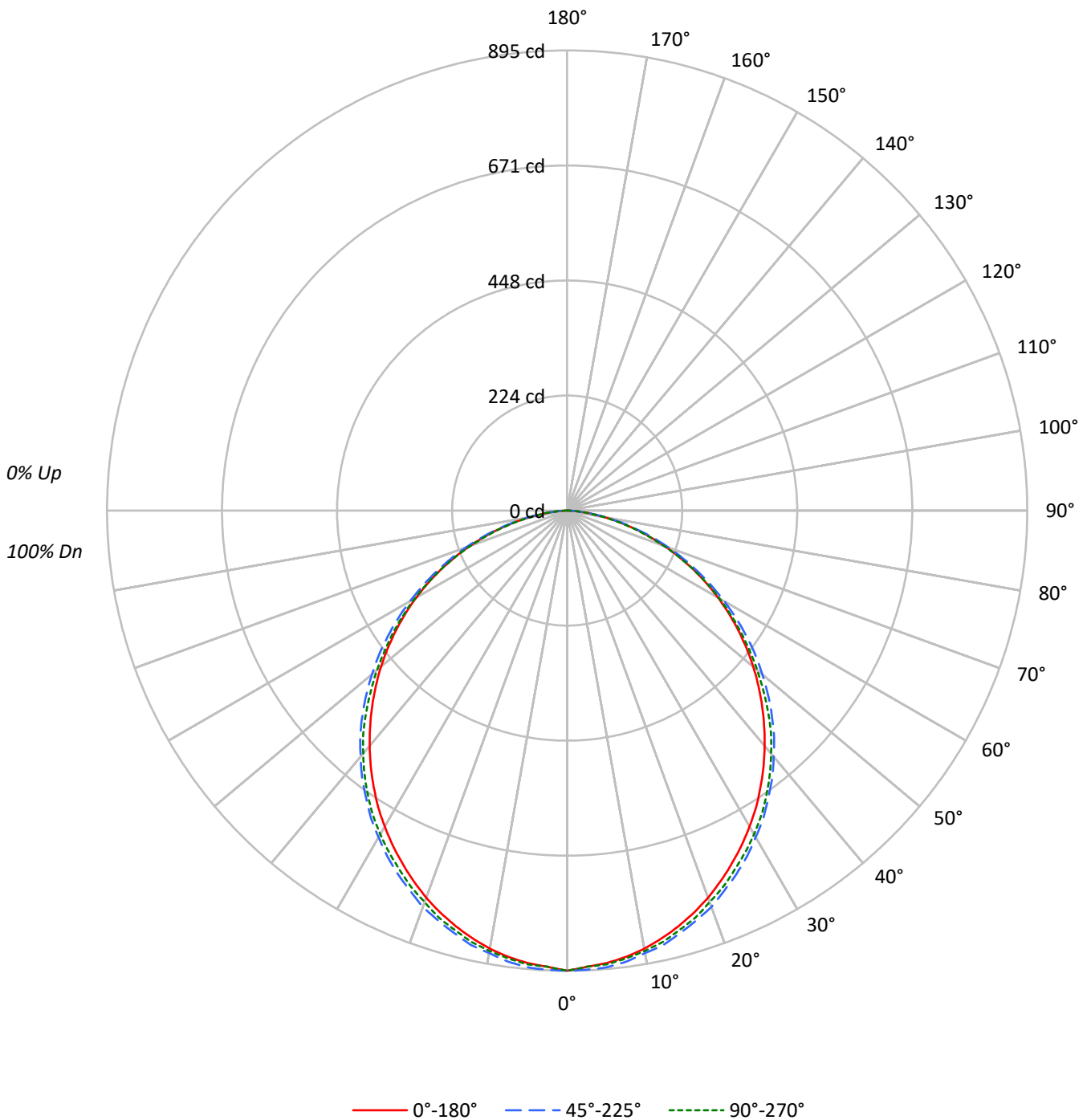
Lumens per Lamp: N/A  
Luminaire Lumens: 2353.0 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	4817	4817	4817
5°	4772	4817	4787
10°	4729	4776	4753
15°	4663	4738	4705
20°	4590	4699	4642
25°	4500	4631	4578
30°	4409	4559	4517
35°	4310	4481	4439
40°	4198	4391	4336
45°	4080	4286	4205
50°	3958	4149	4041
55°	3814	3993	3870
60°	3651	3803	3686
65°	3441	3573	3443
70°	3166	3294	3131
75°	2789	2915	2745
80°	2266	2365	2241
85°	1581	1680	1643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.3	3.6
10°-20°	238.9	10.2
20°-30°	356.3	15.1
30°-40°	422.2	17.9
40°-50°	427.2	18.2
50°-60°	373.1	15.9
60°-70°	272.6	11.6
70°-80°	145.1	6.2
80°-90°	33.5	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°	679.4	28.9
0°-40°	1101.6	46.8
0°-60°	1901.8	80.8
0°-90°	2353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2353.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	883	885	892	894	886	84
15°	837	842	850	856	844	236
25°	758	767	780	783	771	349
35°	656	666	682	687	676	410
45°	536	546	563	564	552	414
55°	406	415	426	419	412	363
65°	270	276	281	275	270	267
75°	134	137	140	135	132	143
85°	26	26	27	28	27	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	895.0	895.0	895.0	895.0	895.0
2.5°	888.0	890.9	893.9	895.2	887.9
5°	883.3	885.0	891.6	893.7	886.1
7.5°	875.7	878.2	884.6	885.6	878.3
10°	865.3	869.7	874.0	878.7	869.8
12.5°	851.9	858.0	865.3	866.1	859.4
15°	836.9	842.5	850.4	855.6	844.5
17.5°	820.1	825.5	835.8	836.7	830.0
20°	801.4	808.1	820.4	822.5	810.5
22.5°	780.1	789.2	799.4	801.5	792.6
25°	757.8	767.2	779.8	782.7	770.9
27.5°	734.5	743.5	757.7	759.8	749.8
30°	709.5	717.9	733.6	737.0	726.9
32.5°	684.2	692.6	709.9	712.8	702.9
35°	656.0	666.3	682.0	686.8	675.7
37.5°	627.3	637.3	655.2	659.5	647.5
40°	597.5	607.4	625.0	628.6	617.1
42.5°	567.1	577.0	595.9	596.4	586.9
45°	536.1	545.6	563.1	563.6	552.5
47.5°	504.6	514.2	529.8	528.1	517.6
50°	472.7	481.8	495.5	492.0	482.6
52.5°	439.7	448.5	461.5	455.7	446.8
55°	406.5	414.7	425.5	419.3	412.4
57.5°	373.0	381.3	389.6	383.3	377.4
60°	339.2	346.5	353.3	347.0	342.4
62.5°	304.9	311.2	317.0	311.0	306.7
65°	270.2	275.7	280.6	275.0	270.4
67.5°	235.7	240.4	244.9	239.1	234.3
70°	201.2	205.2	209.3	203.4	199.0
72.5°	167.2	170.7	174.4	168.6	164.8
75°	134.1	137.2	140.2	135.0	132.0
77.5°	102.5	105.1	107.1	103.9	101.0
80°	73.1	75.1	76.3	75.0	72.3
82.5°	47.0	48.4	49.0	49.0	47.2
85°	25.6	26.0	27.2	27.5	26.6
87.5°	9.9	10.5	10.8	11.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)