

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: P488441

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2LO-35-120-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: P488441  
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-35-120-EDD  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

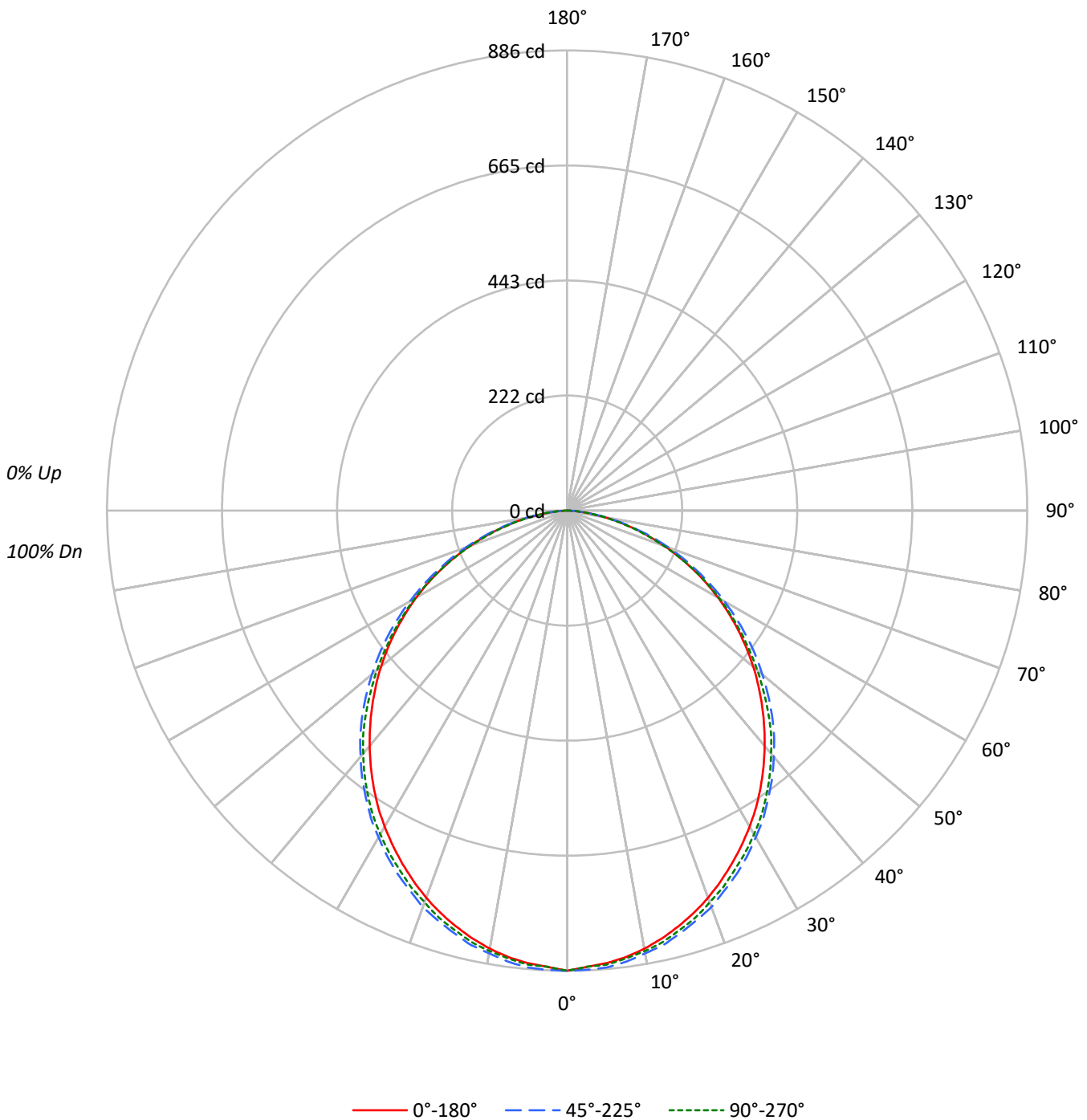
Lumens per Lamp: N/A  
Luminaire Lumens: 2329.7 lumens  
Efficiency: N/A  
Efficacy: 99.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	4769	4769	4769
5°	4725	4769	4740
10°	4682	4729	4706
15°	4617	4691	4659
20°	4544	4652	4596
25°	4456	4585	4533
30°	4366	4514	4473
35°	4267	4437	4395
40°	4156	4348	4293
45°	4040	4244	4163
50°	3918	4108	4001
55°	3776	3953	3832
60°	3616	3765	3649
65°	3408	3538	3409
70°	3135	3262	3100
75°	2761	2886	2718
80°	2244	2340	2219
85°	1562	1667	1624



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.5	3.6
10°-20°	236.5	10.2
20°-30°	352.7	15.1
30°-40°	418.0	17.9
40°-50°	422.9	18.2
50°-60°	369.4	15.9
60°-70°	269.9	11.6
70°-80°	143.6	6.2
80°-90°	33.2	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°	672.7	28.9
0°-40°	1090.7	46.8
0°-60°	1883.0	80.8
0°-90°	2329.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2329.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	875	876	883	885	877	83
15°	829	834	842	847	836	234
25°	750	760	772	775	763	346
35°	650	660	675	680	669	406
45°	531	540	558	558	547	409
55°	402	411	421	415	408	360
65°	268	273	278	272	268	265
75°	133	136	139	134	131	141
85°	25	26	27	27	26	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	886.1	886.1	886.1	886.1	886.1
2.5°	879.2	882.1	885.0	886.3	879.1
5°	874.6	876.3	882.8	884.8	877.4
7.5°	867.0	869.5	875.9	876.8	869.6
10°	856.7	861.1	865.4	870.0	861.2
12.5°	843.5	849.5	856.7	857.5	850.9
15°	828.6	834.2	842.0	847.1	836.1
17.5°	812.0	817.4	827.5	828.4	821.8
20°	793.4	800.1	812.3	814.4	802.5
22.5°	772.4	781.3	791.5	793.5	784.8
25°	750.3	759.6	772.1	775.0	763.3
27.5°	727.2	736.1	750.2	752.3	742.4
30°	702.5	710.8	726.3	729.7	719.7
32.5°	677.4	685.7	702.9	705.7	695.9
35°	649.5	659.7	675.3	680.0	669.0
37.5°	621.1	630.9	648.7	652.9	641.1
40°	591.6	601.4	618.9	622.4	611.0
42.5°	561.5	571.3	590.0	590.5	581.1
45°	530.8	540.2	557.6	558.0	547.0
47.5°	499.6	509.1	524.6	522.8	512.5
50°	468.0	477.0	490.6	487.1	477.8
52.5°	435.3	444.1	456.9	451.2	442.4
55°	402.4	410.6	421.3	415.2	408.4
57.5°	369.3	377.5	385.7	379.5	373.6
60°	335.9	343.1	349.8	343.5	339.0
62.5°	301.9	308.1	313.9	307.9	303.7
65°	267.6	273.0	277.8	272.3	267.7
67.5°	233.4	238.0	242.4	236.7	232.0
70°	199.2	203.2	207.3	201.4	197.0
72.5°	165.5	169.0	172.6	166.9	163.1
75°	132.8	135.8	138.8	133.7	130.7
77.5°	101.5	104.1	106.1	102.9	100.0
80°	72.4	74.3	75.5	74.2	71.6
82.5°	46.5	47.9	48.6	48.5	46.7
85°	25.3	25.8	27.0	27.2	26.3
87.5°	9.8	10.4	10.7	11.5	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)