

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: P488412

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-1STD-27-120-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: P488412  
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-LD4-1STD-27-120-EDD-90  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

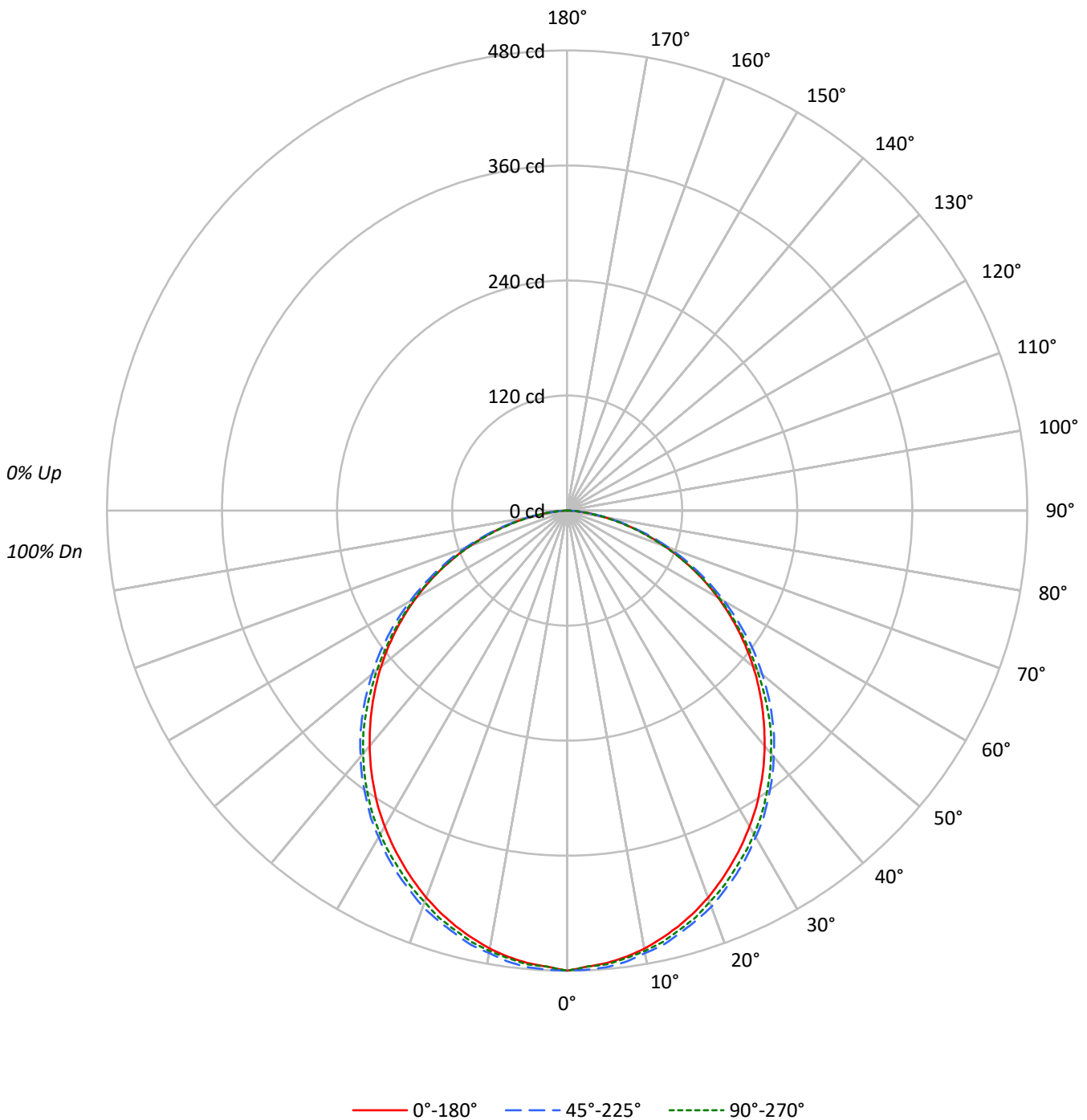
Lumens per Lamp: N/A  
Luminaire Lumens: 1261.9 lumens  
Efficiency: N/A  
Efficacy: 76.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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°	2583	2583	2583
5°	2559	2583	2567
10°	2536	2561	2549
15°	2501	2541	2523
20°	2461	2519	2489
25°	2413	2483	2455
30°	2365	2445	2422
35°	2311	2403	2380
40°	2251	2355	2325
45°	2188	2299	2255
50°	2123	2225	2167
55°	2046	2141	2076
60°	1958	2040	1976
65°	1845	1917	1847
70°	1698	1767	1679
75°	1495	1564	1472
80°	1215	1268	1203
85°	846	902	883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.2	3.6
10°-20°	128.1	10.2
20°-30°	191.0	15.1
30°-40°	226.4	17.9
40°-50°	229.1	18.2
50°-60°	200.1	15.9
60°-70°	146.2	11.6
70°-80°	77.8	6.2
80°-90°	18.0	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°	364.3	28.9
0°-40°	590.7	46.8
0°-60°	1019.8	80.8
0°-90°	1261.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1261.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	474	475	478	479	475	45
15°	449	452	456	459	453	127
25°	406	411	418	420	413	187
35°	352	357	366	368	362	220
45°	288	293	302	302	296	222
55°	218	222	228	225	221	195
65°	145	148	150	148	145	143
75°	72	74	75	72	71	76
85°	14	14	15	15	14	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	479.9	479.9	479.9	479.9	479.9
2.5°	476.2	477.7	479.3	480.0	476.1
5°	473.7	474.6	478.1	479.2	475.2
7.5°	469.6	470.9	474.4	474.9	471.0
10°	464.0	466.4	468.7	471.2	466.4
12.5°	456.8	460.1	464.0	464.4	460.8
15°	448.8	451.8	456.0	458.8	452.8
17.5°	439.8	442.7	448.2	448.7	445.1
20°	429.7	433.3	439.9	441.1	434.6
22.5°	418.3	423.2	428.7	429.8	425.0
25°	406.4	411.4	418.2	419.7	413.4
27.5°	393.9	398.7	406.3	407.4	402.1
30°	380.5	385.0	393.4	395.2	389.8
32.5°	366.9	371.4	380.7	382.2	376.9
35°	351.8	357.3	365.7	368.3	362.3
37.5°	336.4	341.7	351.3	353.6	347.2
40°	320.4	325.7	335.2	337.1	330.9
42.5°	304.1	309.4	319.5	319.8	314.7
45°	287.5	292.6	302.0	302.2	296.3
47.5°	270.6	275.7	284.1	283.2	277.6
50°	253.5	258.4	265.7	263.8	258.8
52.5°	235.8	240.5	247.5	244.4	239.6
55°	218.0	222.4	228.2	224.9	221.2
57.5°	200.0	204.5	208.9	205.6	202.4
60°	181.9	185.8	189.5	186.1	183.6
62.5°	163.5	166.9	170.0	166.8	164.5
65°	144.9	147.9	150.5	147.5	145.0
67.5°	126.4	128.9	131.3	128.2	125.7
70°	107.9	110.1	112.3	109.1	106.7
72.5°	89.7	91.6	93.5	90.4	88.4
75°	71.9	73.6	75.2	72.4	70.8
77.5°	55.0	56.4	57.5	55.7	54.2
80°	39.2	40.3	40.9	40.2	38.8
82.5°	25.2	26.0	26.3	26.3	25.3
85°	13.7	14.0	14.6	14.8	14.3
87.5°	5.3	5.7	5.8	6.3	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)