

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: P488392

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-1HI-35-120-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: P488392  
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-LD4-1HI-35-120-EDD-90  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

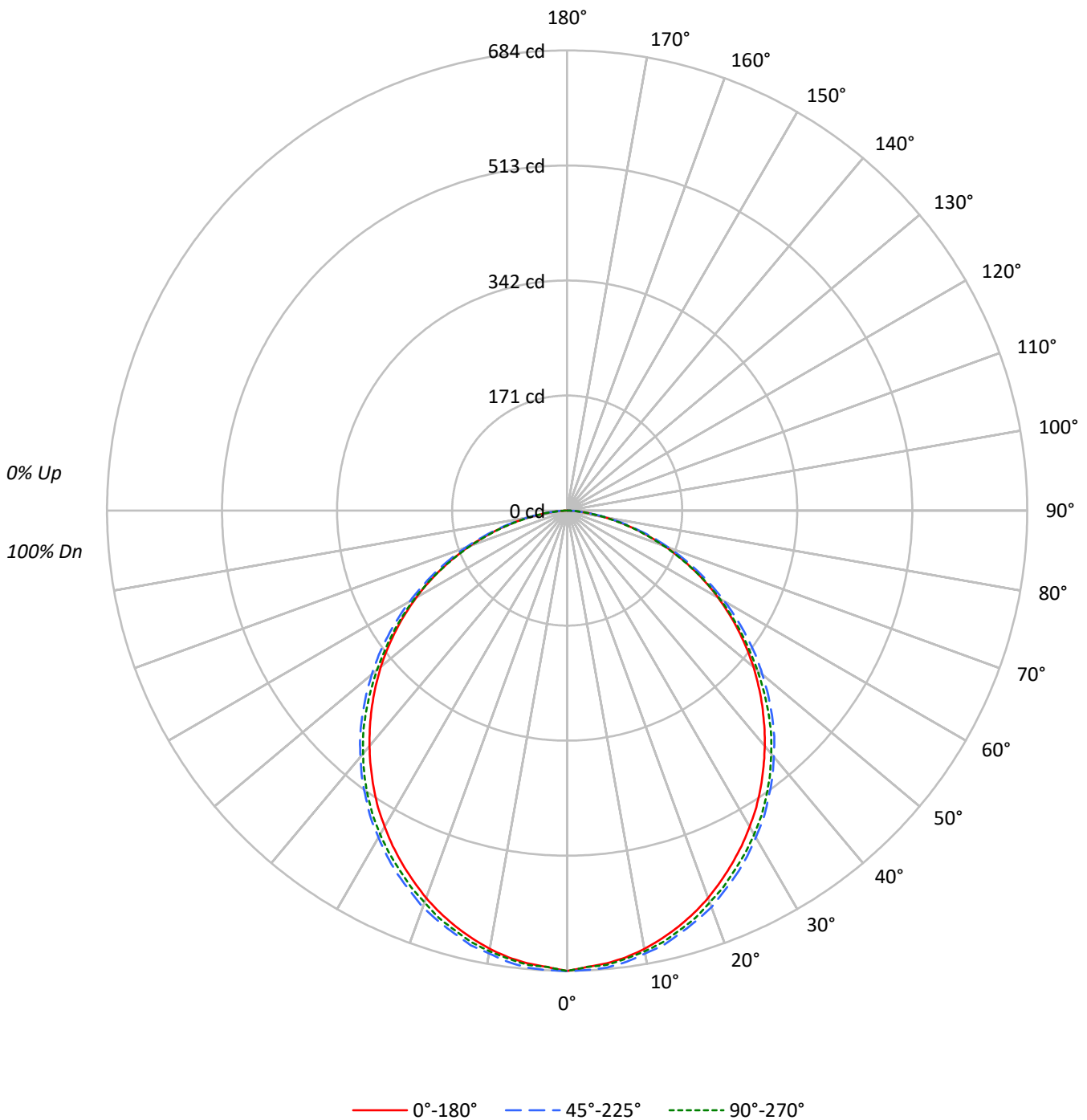
Lumens per Lamp: N/A  
Luminaire Lumens: 1799.4 lumens  
Efficiency: N/A  
Efficacy: 83.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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

TEST NUMBER: P488392

CATALOG NUMBER: CLM-12-2-INS-A19156-LD4-1HI-35-120-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P488392

CATALOG NUMBER: CLM-12-2-INS-A19156-LD4-1HI-35-120-EDD-90

**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°	3683	3683	3683
5°	3649	3684	3661
10°	3616	3653	3635
15°	3566	3623	3598
20°	3510	3593	3550
25°	3441	3542	3501
30°	3372	3486	3455
35°	3296	3427	3395
40°	3211	3358	3315
45°	3121	3277	3216
50°	3027	3172	3090
55°	2916	3053	2959
60°	2792	2908	2818
65°	2632	2733	2634
70°	2422	2519	2395
75°	2131	2229	2100
80°	1733	1807	1714
85°	1204	1284	1254



TEST NUMBER: P488392

CATALOG NUMBER: CLM-12-2-INS-A19156-LD4-1HI-35-120-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.5	3.6
10°-20°	182.7	10.2
20°-30°	272.4	15.1
30°-40°	322.8	17.9
40°-50°	326.7	18.2
50°-60°	285.3	15.9
60°-70°	208.5	11.6
70°-80°	110.9	6.2
80°-90°	25.6	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°	519.6	28.9
0°-40°	842.4	46.8
0°-60°	1454.4	80.8
0°-90°	1799.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1799.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	676	677	682	683	678	64
15°	640	644	650	654	646	180
25°	580	587	596	599	590	267
35°	502	510	522	525	517	314
45°	410	417	431	431	422	316
55°	311	317	325	321	315	278
65°	207	211	215	210	207	205
75°	102	105	107	103	101	109
85°	20	20	21	21	20	25
90°	0	0	0	0	0	



TEST NUMBER: P488392

CATALOG NUMBER: CLM-12-2-INS-A19156-LD4-1HI-35-120-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	684.4	684.4	684.4	684.4	684.4
2.5°	679.1	681.3	683.6	684.6	679.0
5°	675.5	676.8	681.9	683.4	677.7
7.5°	669.7	671.6	676.5	677.2	671.7
10°	661.7	665.1	668.4	671.9	665.2
12.5°	651.5	656.1	661.7	662.3	657.2
15°	640.0	644.3	650.3	654.3	645.8
17.5°	627.2	631.3	639.1	639.9	634.7
20°	612.8	618.0	627.4	629.0	619.8
22.5°	596.6	603.5	611.3	612.9	606.1
25°	579.5	586.7	596.4	598.6	589.5
27.5°	561.7	568.5	579.5	581.0	573.4
30°	542.6	549.0	561.0	563.6	555.9
32.5°	523.2	529.6	542.9	545.1	537.5
35°	501.7	509.5	521.6	525.2	516.7
37.5°	479.7	487.3	501.0	504.3	495.2
40°	457.0	464.5	478.0	480.7	471.9
42.5°	433.7	441.3	455.7	456.1	448.8
45°	410.0	417.2	430.6	431.0	422.5
47.5°	385.9	393.2	405.2	403.8	395.8
50°	361.5	368.5	378.9	376.2	369.0
52.5°	336.2	343.0	352.9	348.5	341.7
55°	310.8	317.1	325.4	320.7	315.4
57.5°	285.2	291.6	297.9	293.2	288.6
60°	259.4	265.0	270.2	265.3	261.8
62.5°	233.2	238.0	242.5	237.8	234.5
65°	206.7	210.9	214.6	210.3	206.8
67.5°	180.3	183.8	187.3	182.8	179.2
70°	153.9	157.0	160.1	155.5	152.2
72.5°	127.9	130.6	133.3	128.9	126.0
75°	102.5	104.9	107.2	103.3	101.0
77.5°	78.4	80.4	81.9	79.4	77.2
80°	55.9	57.4	58.3	57.3	55.3
82.5°	35.9	37.0	37.5	37.4	36.1
85°	19.5	19.9	20.8	21.0	20.3
87.5°	7.6	8.1	8.3	8.9	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)