

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: P488388

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-1HI-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: P488388
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-27-120-EDD-90
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

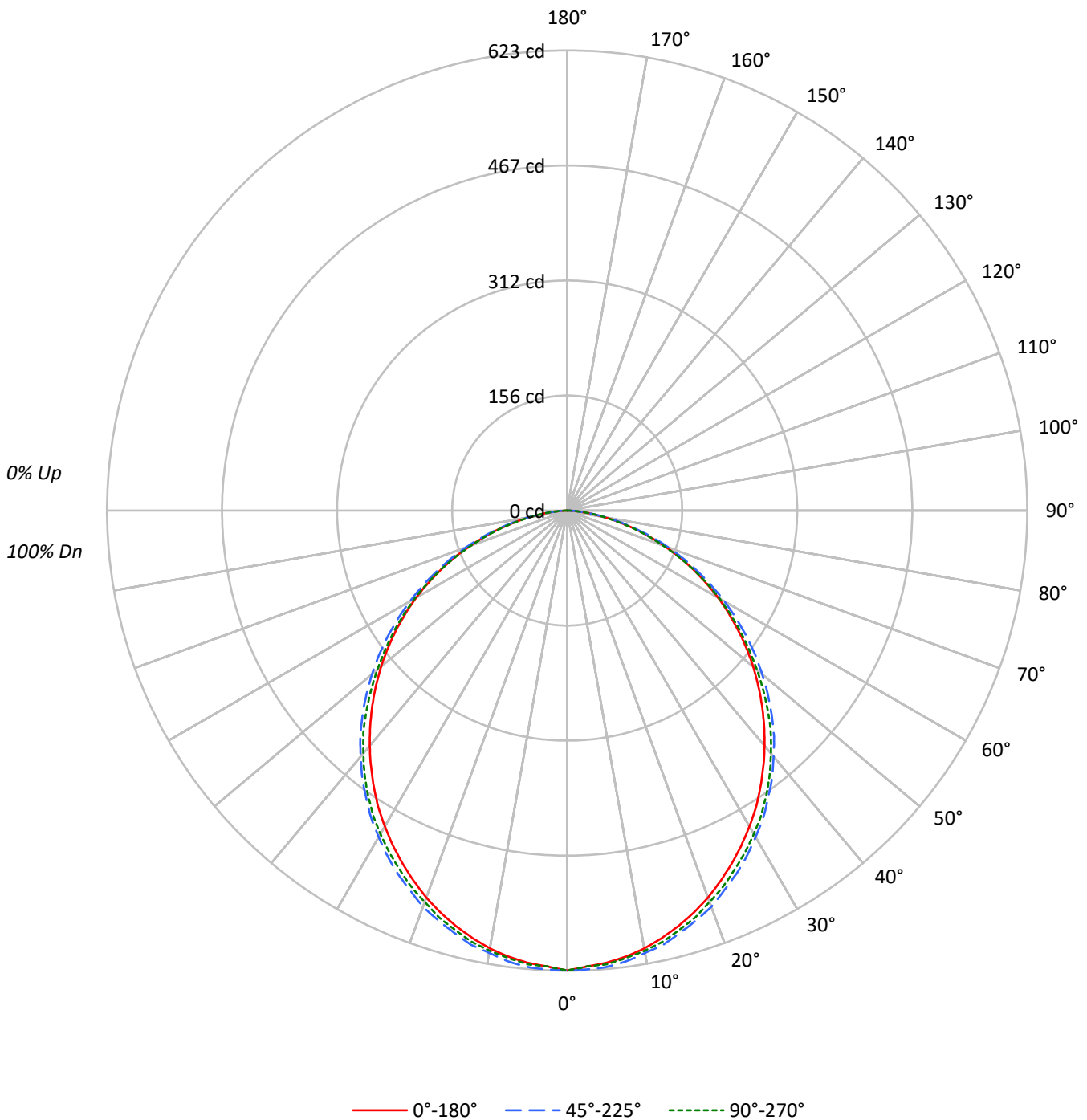
Lumens per Lamp: N/A
Luminaire Lumens: 1637.0 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	3351	3351	3351
5°	3320	3351	3331
10°	3290	3323	3307
15°	3244	3296	3273
20°	3193	3269	3230
25°	3131	3222	3185
30°	3068	3172	3143
35°	2999	3118	3089
40°	2921	3055	3016
45°	2839	2982	2926
50°	2753	2886	2811
55°	2654	2777	2692
60°	2540	2646	2564
65°	2394	2486	2395
70°	2203	2291	2178
75°	1940	2027	1911
80°	1578	1646	1559
85°	1099	1167	1142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.6	3.6
10°-20°	166.2	10.2
20°-30°	247.8	15.1
30°-40°	293.7	17.9
40°-50°	297.2	18.2
50°-60°	259.5	15.9
60°-70°	189.7	11.6
70°-80°	100.9	6.2
80°-90°	23.3	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°	472.7	28.9
0°-40°	766.4	46.8
0°-60°	1323.1	80.8
0°-90°	1637.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1637.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	623	623	623	623	623	
5°	614	616	620	622	616	58
15°	582	586	592	595	588	164
25°	527	534	542	544	536	243
35°	456	464	474	478	470	285
45°	373	380	392	392	384	288
55°	283	288	296	292	287	253
65°	188	192	195	191	188	186
75°	93	95	98	94	92	99
85°	18	18	19	19	18	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	622.7	622.7	622.7	622.7	622.7
2.5°	617.8	619.8	621.9	622.8	617.7
5°	614.5	615.7	620.3	621.7	616.5
7.5°	609.2	611.0	615.5	616.1	611.0
10°	602.0	605.1	608.1	611.3	605.1
12.5°	592.7	596.9	602.0	602.5	597.9
15°	582.2	586.1	591.6	595.2	587.5
17.5°	570.6	574.3	581.5	582.1	577.4
20°	557.5	562.2	570.8	572.2	563.9
22.5°	542.7	549.0	556.2	557.6	551.4
25°	527.2	533.7	542.5	544.5	536.3
27.5°	511.0	517.2	527.2	528.6	521.6
30°	493.6	499.5	510.4	512.8	505.7
32.5°	476.0	481.8	493.9	495.9	489.0
35°	456.4	463.5	474.5	477.8	470.1
37.5°	436.4	443.3	455.8	458.8	450.5
40°	415.7	422.6	434.8	437.3	429.3
42.5°	394.6	401.4	414.5	414.9	408.3
45°	373.0	379.6	391.8	392.1	384.4
47.5°	351.0	357.7	368.6	367.4	360.1
50°	328.8	335.2	344.7	342.3	335.7
52.5°	305.9	312.0	321.1	317.0	310.9
55°	282.8	288.5	296.0	291.7	286.9
57.5°	259.5	265.3	271.0	266.7	262.5
60°	236.0	241.1	245.8	241.4	238.2
62.5°	212.1	216.5	220.6	216.4	213.4
65°	188.0	191.8	195.2	191.3	188.1
67.5°	164.0	167.2	170.4	166.3	163.0
70°	140.0	142.8	145.6	141.5	138.4
72.5°	116.3	118.8	121.3	117.3	114.6
75°	93.3	95.4	97.5	93.9	91.9
77.5°	71.3	73.1	74.5	72.3	70.3
80°	50.9	52.2	53.1	52.2	50.3
82.5°	32.7	33.7	34.1	34.1	32.8
85°	17.8	18.1	18.9	19.1	18.5
87.5°	6.9	7.3	7.5	8.1	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)