

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: P488445

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2LO-50-120-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: P488445
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-50-120-EDD
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

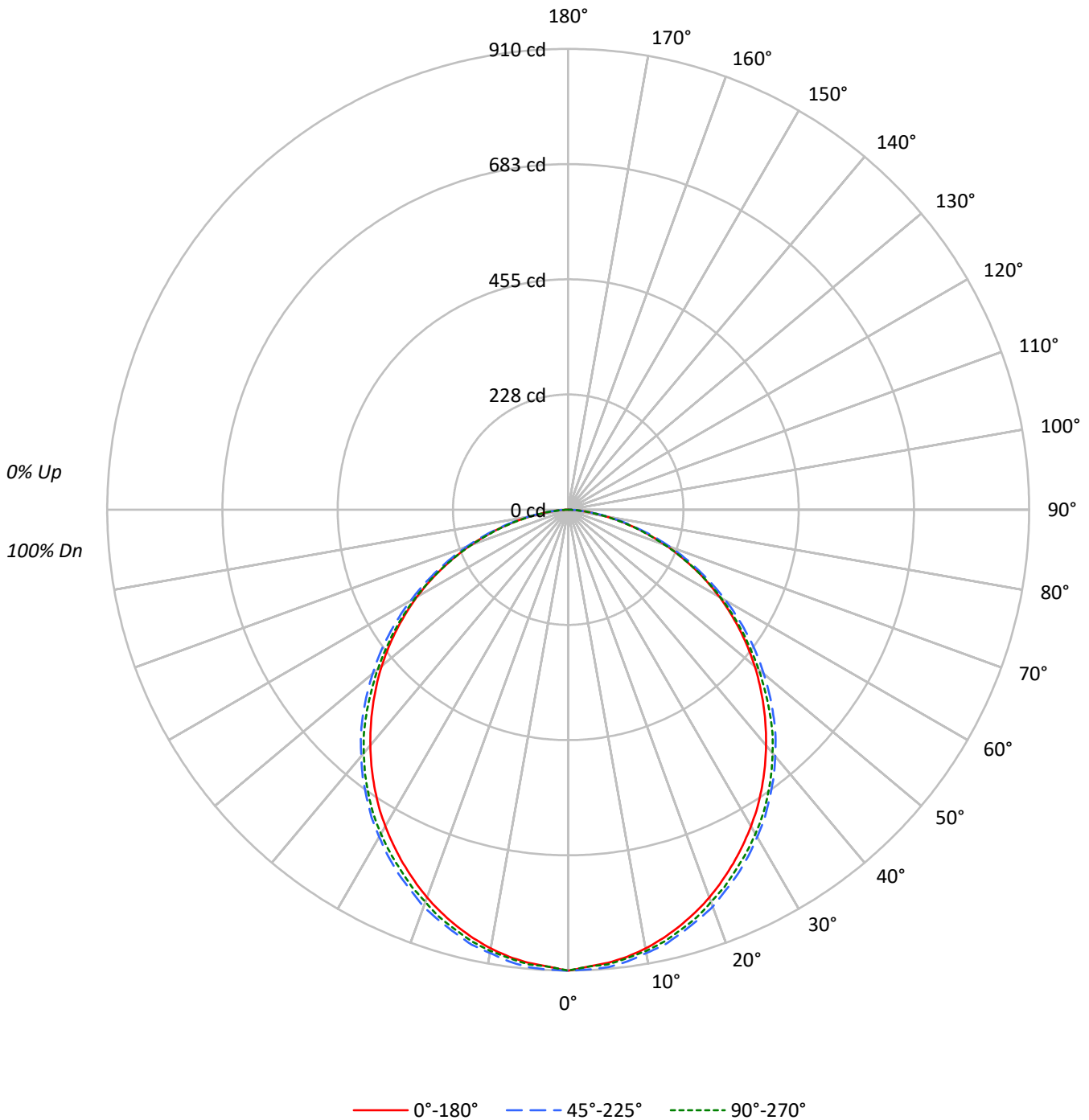
Lumens per Lamp: N/A
Luminaire Lumens: 2392.9 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4899	4899	4899
5°	4853	4899	4869
10°	4809	4857	4834
15°	4742	4819	4785
20°	4668	4778	4721
25°	4577	4710	4656
30°	4484	4636	4594
35°	4383	4557	4514
40°	4269	4466	4409
45°	4150	4359	4277
50°	4025	4219	4109
55°	3879	4060	3935
60°	3714	3867	3748
65°	3500	3633	3502
70°	3220	3350	3185
75°	2836	2963	2793
80°	2303	2405	2278
85°	1606	1711	1667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	3.6
10°-20°	242.9	10.2
20°-30°	362.3	15.1
30°-40°	429.3	17.9
40°-50°	434.4	18.2
50°-60°	379.4	15.9
60°-70°	277.2	11.6
70°-80°	147.5	6.2
80°-90°	34.1	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°	690.9	28.9
0°-40°	1120.3	46.8
0°-60°	1934.0	80.8
0°-90°	2392.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2392.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	898	900	907	909	901	85
15°	851	857	865	870	859	240
25°	771	780	793	796	784	355
35°	667	678	694	698	687	417
45°	545	555	573	573	562	421
55°	413	422	433	426	419	370
65°	275	280	285	280	275	272
75°	136	140	142	137	134	145
85°	26	26	28	28	27	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.2	910.2	910.2	910.2	910.2
2.5°	903.1	906.0	909.0	910.4	903.0
5°	898.3	900.0	906.8	908.8	901.2
7.5°	890.5	893.1	899.6	900.6	893.2
10°	879.9	884.5	888.8	893.6	884.6
12.5°	866.4	872.5	879.9	880.8	873.9
15°	851.1	856.8	864.8	870.1	858.8
17.5°	834.0	839.5	850.0	850.9	844.1
20°	815.0	821.8	834.3	836.5	824.3
22.5°	793.3	802.5	813.0	815.1	806.1
25°	770.7	780.2	793.1	796.0	784.0
27.5°	747.0	756.1	770.6	772.7	762.5
30°	721.6	730.1	746.0	749.5	739.2
32.5°	695.8	704.3	721.9	724.9	714.8
35°	667.1	677.6	693.6	698.4	687.1
37.5°	637.9	648.1	666.3	670.6	658.5
40°	607.7	617.7	635.6	639.2	627.6
42.5°	576.8	586.8	606.0	606.5	596.9
45°	545.2	554.8	572.7	573.1	561.9
47.5°	513.1	522.9	538.8	537.0	526.4
50°	480.7	490.0	503.9	500.3	490.7
52.5°	447.1	456.1	469.3	463.4	454.4
55°	413.4	421.7	432.7	426.4	419.4
57.5°	379.3	387.8	396.2	389.8	383.8
60°	345.0	352.4	359.3	352.9	348.2
62.5°	310.1	316.4	322.4	316.3	311.9
65°	274.8	280.4	285.3	279.7	275.0
67.5°	239.7	244.5	249.0	243.1	238.3
70°	204.6	208.7	212.9	206.8	202.4
72.5°	170.0	173.6	177.3	171.5	167.6
75°	136.4	139.5	142.5	137.3	134.3
77.5°	104.2	106.9	109.0	105.6	102.7
80°	74.3	76.3	77.6	76.2	73.5
82.5°	47.8	49.2	49.9	49.8	48.0
85°	26.0	26.5	27.7	28.0	27.0
87.5°	10.1	10.7	11.0	11.9	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)