

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: P489679

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3STD-40-120-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: P489679
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-24-4-INS-A19156-LD4-3STD-40-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

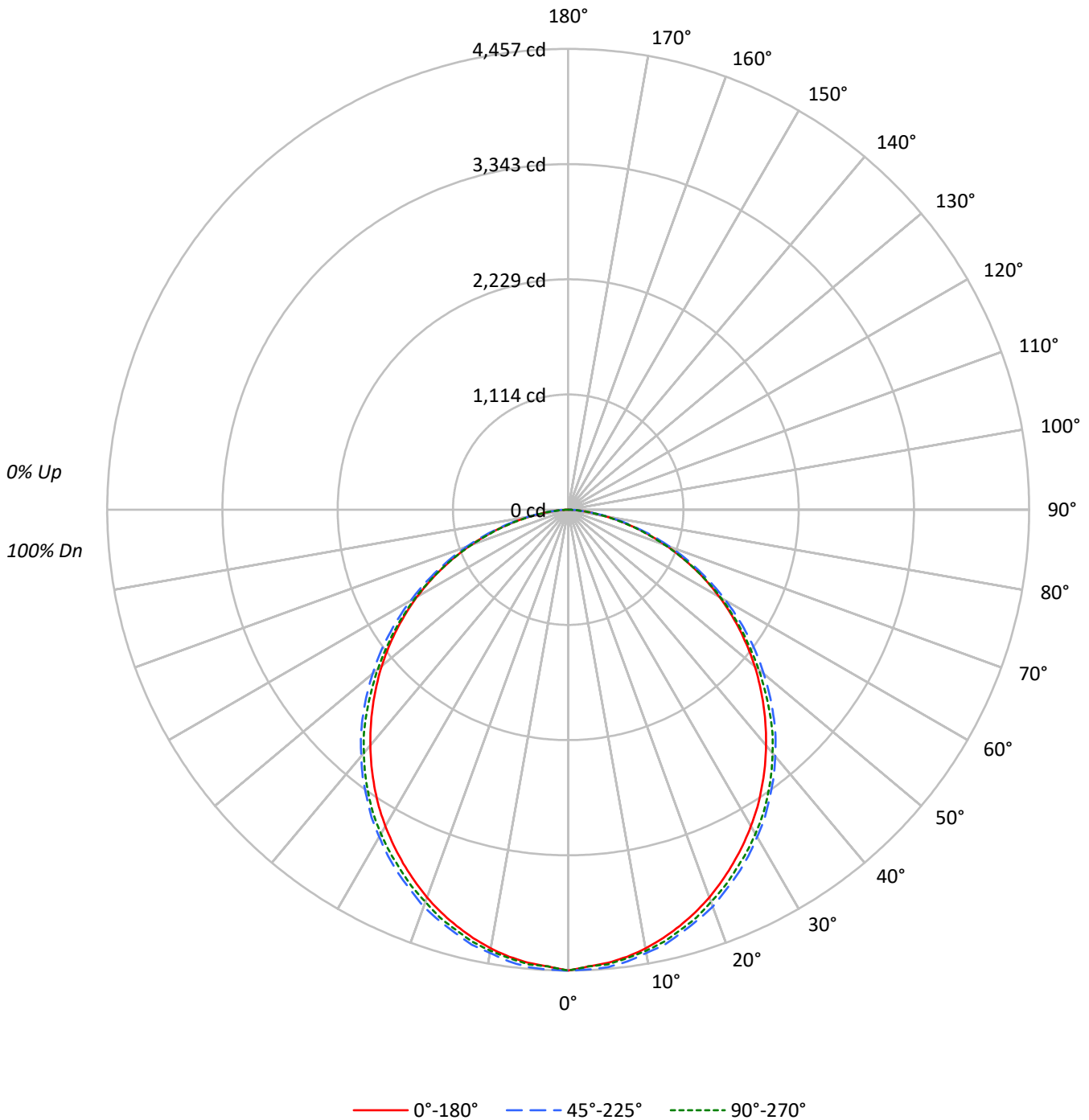
Lumens per Lamp: N/A
Luminaire Lumens: 11718.6 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	5997	5997	5997
5°	5942	5998	5961
10°	5887	5947	5918
15°	5806	5900	5858
20°	5715	5850	5780
25°	5603	5766	5700
30°	5490	5676	5624
35°	5366	5579	5527
40°	5227	5468	5398
45°	5080	5336	5236
50°	4928	5166	5031
55°	4749	4971	4818
60°	4546	4735	4589
65°	4285	4449	4288
70°	3943	4102	3899
75°	3472	3629	3419
80°	2821	2944	2789
85°	1964	2093	2044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.8	3.6
10°-20°	1189.6	10.2
20°-30°	1774.2	15.1
30°-40°	2102.5	17.9
40°-50°	2127.4	18.2
50°-60°	1858.0	15.9
60°-70°	1357.7	11.6
70°-80°	722.4	6.2
80°-90°	167.0	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°	3383.6	28.9
0°-40°	5486.1	46.8
0°-60°	9471.5	80.8
0°-90°	11718.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11718.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4457	4457	4457	4457	4457	
5°	4399	4408	4441	4451	4413	417
15°	4168	4196	4235	4261	4206	1175
25°	3774	3821	3884	3898	3839	1739
35°	3267	3318	3397	3420	3365	2043
45°	2670	2717	2804	2807	2752	2060
55°	2024	2065	2119	2088	2054	1810
65°	1346	1373	1397	1370	1347	1332
75°	668	683	698	672	658	710
85°	127	130	136	137	132	161
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4457.3	4457.3	4457.3	4457.3	4457.3
2.5°	4422.5	4436.9	4451.8	4458.3	4422.0
5°	4399.3	4407.6	4440.6	4450.8	4413.2
7.5°	4361.2	4373.7	4405.8	4410.4	4374.2
10°	4309.2	4331.5	4352.8	4376.1	4331.9
12.5°	4242.8	4273.0	4309.2	4313.4	4279.9
15°	4168.0	4195.9	4235.4	4260.9	4205.6
17.5°	4084.4	4111.4	4162.4	4167.1	4133.6
20°	3991.1	4024.5	4085.8	4096.5	4036.6
22.5°	3885.2	3930.2	3981.3	3991.5	3947.4
25°	3774.2	3820.6	3883.8	3898.2	3839.2
27.5°	3658.1	3702.7	3773.7	3784.0	3734.3
30°	3533.6	3575.4	3653.5	3670.6	3620.0
32.5°	3407.3	3449.1	3535.5	3549.9	3500.7
35°	3267.1	3318.2	3396.6	3420.3	3365.1
37.5°	3124.0	3173.7	3262.9	3284.3	3224.8
40°	2975.9	3025.1	3112.9	3130.5	3073.4
42.5°	2824.5	2873.7	2967.5	2970.3	2923.0
45°	2669.9	2717.2	2804.5	2806.9	2751.6
47.5°	2512.9	2560.7	2638.7	2629.9	2577.9
50°	2354.1	2399.6	2467.8	2450.2	2403.3
52.5°	2189.7	2233.8	2298.3	2269.5	2225.4
55°	2024.3	2065.2	2119.1	2088.4	2054.1
57.5°	1857.6	1898.9	1940.3	1909.2	1879.4
60°	1689.5	1725.7	1759.6	1728.0	1705.3
62.5°	1518.6	1549.7	1579.0	1548.8	1527.4
65°	1345.8	1373.2	1397.4	1369.5	1346.8
67.5°	1174.0	1197.2	1219.5	1190.7	1167.0
70°	1002.2	1022.2	1042.6	1012.9	991.0
72.5°	832.7	850.3	868.4	839.6	820.6
75°	667.8	683.1	698.0	672.5	657.6
77.5°	510.4	523.4	533.6	517.3	502.9
80°	364.1	373.8	379.9	373.4	359.9
82.5°	234.1	241.0	244.3	243.8	235.0
85°	127.2	129.6	135.6	137.0	132.4
87.5°	49.2	52.5	53.9	58.1	53.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)