

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: P489046

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1LO-20-120-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: P489046
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-24-2-INS-A19156-LD4-1LO-20-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

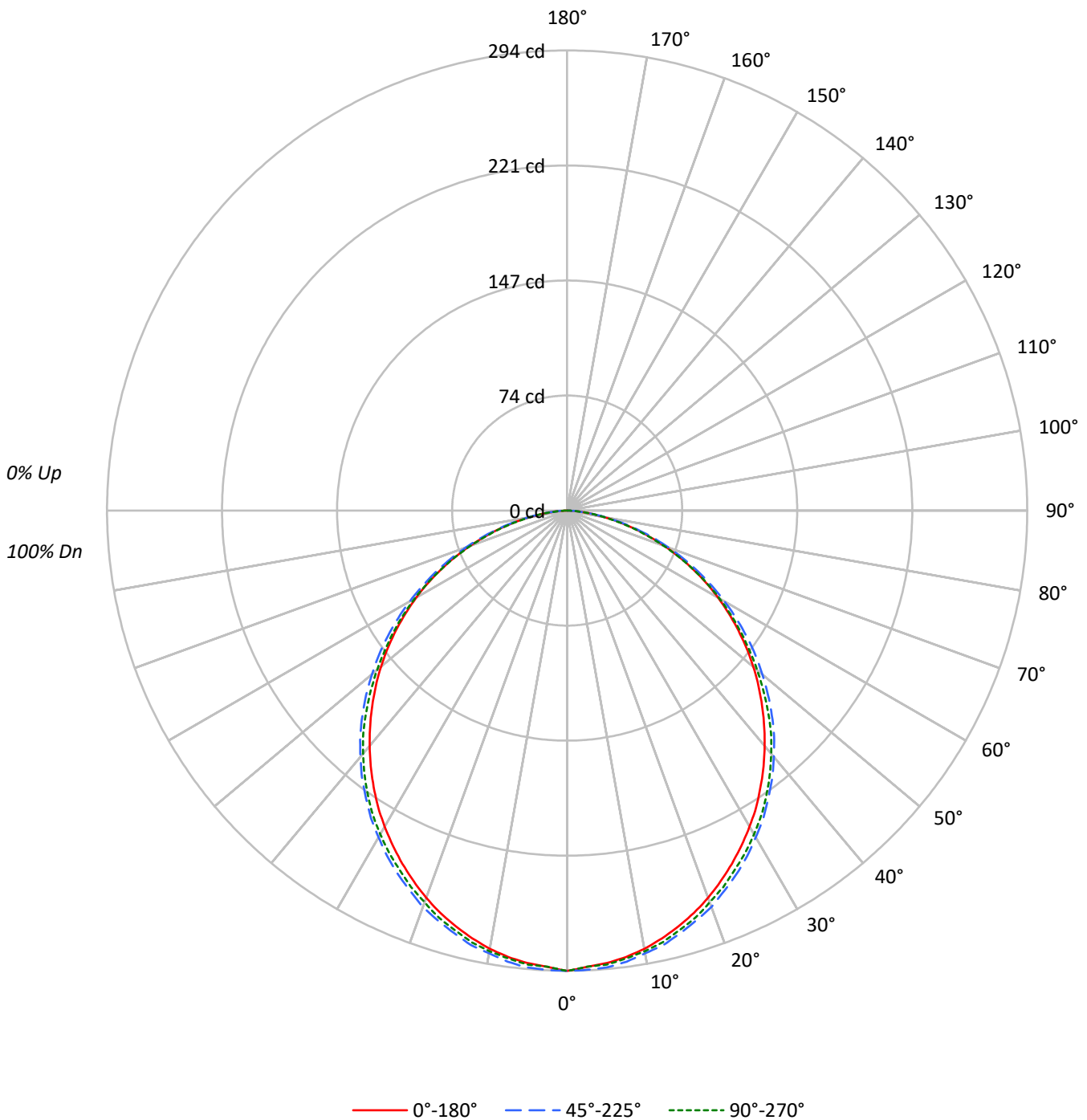
Lumens per Lamp: N/A
Luminaire Lumens: 773.1 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	791	791	791
5°	784	791	786
10°	777	785	781
15°	766	778	773
20°	754	772	763
25°	739	761	752
30°	724	749	742
35°	708	736	729
40°	690	722	712
45°	670	704	691
50°	650	682	664
55°	626	656	636
60°	600	625	605
65°	565	587	565
70°	520	541	515
75°	459	478	451
80°	372	389	367
85°	259	275	269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.7	3.6
10°-20°	78.5	10.2
20°-30°	117.1	15.1
30°-40°	138.7	17.9
40°-50°	140.4	18.2
50°-60°	122.6	15.9
60°-70°	89.6	11.6
70°-80°	47.7	6.2
80°-90°	11.0	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°	223.2	28.9
0°-40°	361.9	46.8
0°-60°	624.9	80.8
0°-90°	773.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	773.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	294	294	294	294	294	
5°	290	291	293	294	291	28
15°	275	277	279	281	278	78
25°	249	252	256	257	253	115
35°	216	219	224	226	222	135
45°	176	179	185	185	182	136
55°	134	136	140	138	136	119
65°	89	91	92	90	89	88
75°	44	45	46	44	43	47
85°	8	8	9	9	9	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	294.1	294.1	294.1	294.1	294.1
2.5°	291.8	292.7	293.7	294.1	291.7
5°	290.2	290.8	293.0	293.6	291.1
7.5°	287.7	288.5	290.7	291.0	288.6
10°	284.3	285.8	287.2	288.7	285.8
12.5°	279.9	281.9	284.3	284.6	282.4
15°	275.0	276.8	279.4	281.1	277.5
17.5°	269.5	271.2	274.6	274.9	272.7
20°	263.3	265.5	269.5	270.3	266.3
22.5°	256.3	259.3	262.7	263.3	260.4
25°	249.0	252.1	256.2	257.2	253.3
27.5°	241.3	244.3	249.0	249.6	246.4
30°	233.1	235.9	241.0	242.2	238.8
32.5°	224.8	227.5	233.2	234.2	230.9
35°	215.5	218.9	224.1	225.6	222.0
37.5°	206.1	209.4	215.3	216.7	212.7
40°	196.3	199.6	205.4	206.5	202.8
42.5°	186.3	189.6	195.8	196.0	192.8
45°	176.1	179.3	185.0	185.2	181.5
47.5°	165.8	168.9	174.1	173.5	170.1
50°	155.3	158.3	162.8	161.6	158.5
52.5°	144.5	147.4	151.6	149.7	146.8
55°	133.5	136.2	139.8	137.8	135.5
57.5°	122.6	125.3	128.0	126.0	124.0
60°	111.5	113.8	116.1	114.0	112.5
62.5°	100.2	102.2	104.2	102.2	100.8
65°	88.8	90.6	92.2	90.4	88.8
67.5°	77.5	79.0	80.5	78.6	77.0
70°	66.1	67.4	68.8	66.8	65.4
72.5°	54.9	56.1	57.3	55.4	54.1
75°	44.1	45.1	46.0	44.4	43.4
77.5°	33.7	34.5	35.2	34.1	33.2
80°	24.0	24.7	25.1	24.6	23.7
82.5°	15.4	15.9	16.1	16.1	15.5
85°	8.4	8.5	8.9	9.0	8.7
87.5°	3.2	3.5	3.6	3.8	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)