

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: P488454

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2STD-40-120-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: P488454  
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-LD4-2STD-40-120-EDD-90  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

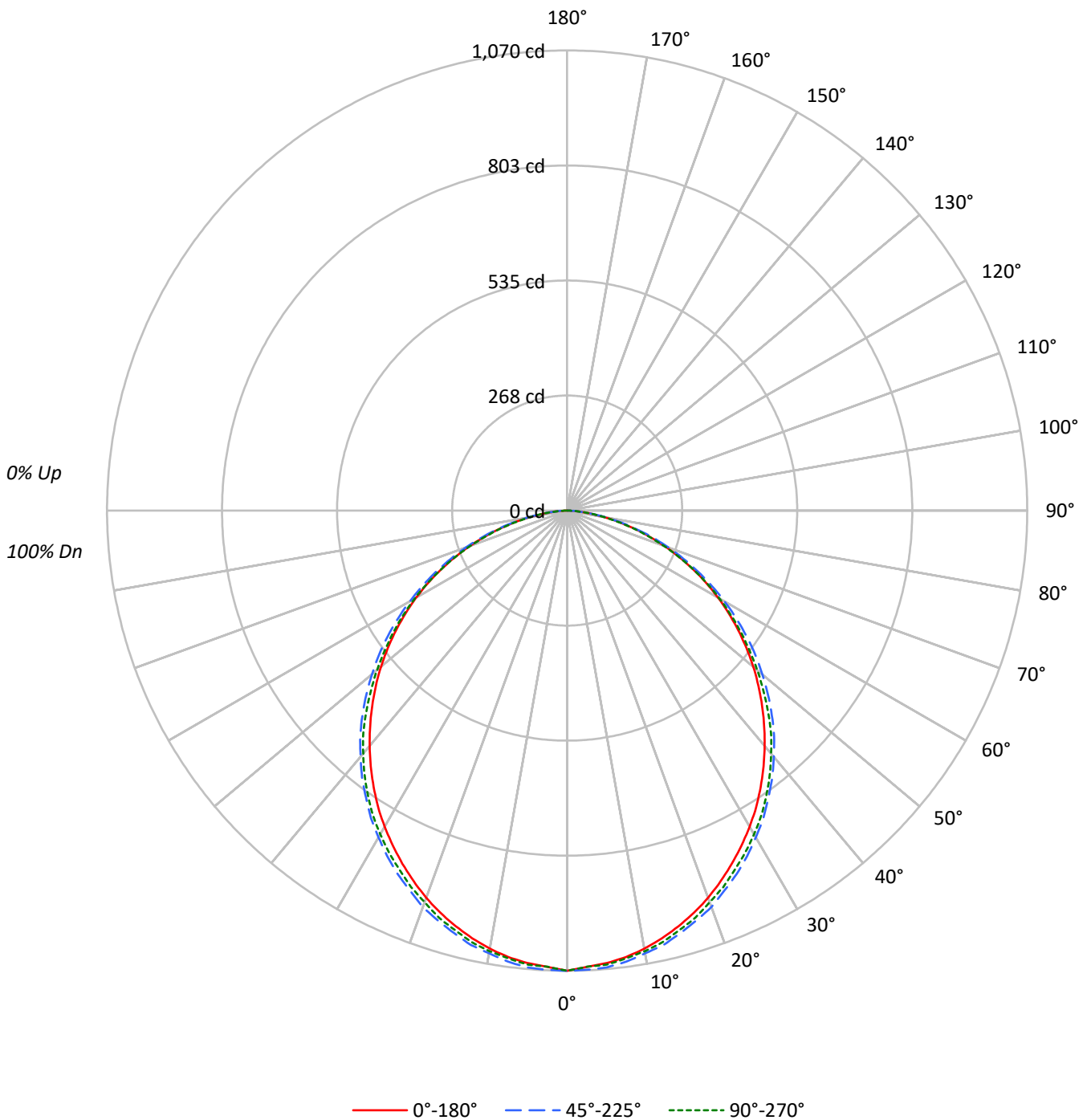
Lumens per Lamp: N/A  
Luminaire Lumens: 2813.5 lumens  
Efficiency: N/A  
Efficacy: 84.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
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°	5760	5760	5760
5°	5706	5760	5725
10°	5654	5711	5684
15°	5576	5666	5626
20°	5488	5619	5550
25°	5381	5537	5474
30°	5272	5451	5401
35°	5154	5358	5308
40°	5020	5251	5184
45°	4879	5125	5028
50°	4732	4961	4831
55°	4560	4774	4628
60°	4366	4548	4407
65°	4115	4273	4117
70°	3786	3939	3744
75°	3333	3485	3283
80°	2709	2827	2678
85°	1890	2013	1964



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.8	3.6
10°-20°	285.6	10.2
20°-30°	426.0	15.1
30°-40°	504.8	17.9
40°-50°	510.8	18.2
50°-60°	446.1	15.9
60°-70°	326.0	11.6
70°-80°	173.4	6.2
80°-90°	40.1	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°	812.4	28.9
0°-40°	1317.2	46.8
0°-60°	2274.0	80.8
0°-90°	2813.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2813.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1056	1058	1066	1069	1060	100
15°	1001	1007	1017	1023	1010	282
25°	906	917	932	936	922	417
35°	784	797	816	821	808	491
45°	641	652	673	674	661	495
55°	486	496	509	501	493	434
65°	323	330	336	329	323	320
75°	160	164	168	161	158	170
85°	31	31	33	33	32	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1061.8	1065.2	1068.8	1070.4	1061.7
5°	1056.2	1058.2	1066.1	1068.6	1059.6
7.5°	1047.1	1050.1	1057.8	1058.9	1050.2
10°	1034.6	1039.9	1045.1	1050.6	1040.1
12.5°	1018.6	1025.9	1034.6	1035.6	1027.6
15°	1000.7	1007.4	1016.9	1023.0	1009.7
17.5°	980.6	987.1	999.4	1000.5	992.4
20°	958.2	966.2	981.0	983.5	969.1
22.5°	932.8	943.6	955.9	958.3	947.7
25°	906.1	917.3	932.5	935.9	921.8
27.5°	878.3	889.0	906.0	908.5	896.6
30°	848.4	858.4	877.2	881.3	869.1
32.5°	818.1	828.1	848.8	852.3	840.5
35°	784.4	796.7	815.5	821.2	807.9
37.5°	750.0	762.0	783.4	788.5	774.2
40°	714.5	726.3	747.4	751.6	737.9
42.5°	678.1	689.9	712.5	713.1	701.8
45°	641.0	652.4	673.3	673.9	660.6
47.5°	603.3	614.8	633.5	631.4	618.9
50°	565.2	576.1	592.5	588.3	577.0
52.5°	525.7	536.3	551.8	544.9	534.3
55°	486.0	495.8	508.8	501.4	493.2
57.5°	446.0	455.9	465.8	458.4	451.2
60°	405.6	414.3	422.5	414.9	409.4
62.5°	364.6	372.1	379.1	371.8	366.7
65°	323.1	329.7	335.5	328.8	323.3
67.5°	281.9	287.4	292.8	285.9	280.2
70°	240.6	245.4	250.3	243.2	237.9
72.5°	199.9	204.2	208.5	201.6	197.0
75°	160.3	164.0	167.6	161.4	157.9
77.5°	122.5	125.7	128.1	124.2	120.8
80°	87.4	89.8	91.2	89.6	86.4
82.5°	56.2	57.9	58.6	58.5	56.4
85°	30.6	31.1	32.6	32.9	31.8
87.5°	11.8	12.6	12.9	13.9	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)