

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: P489185

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5HI-35-120-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: P489185  
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-LD4-5HI-35-120-EDD  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

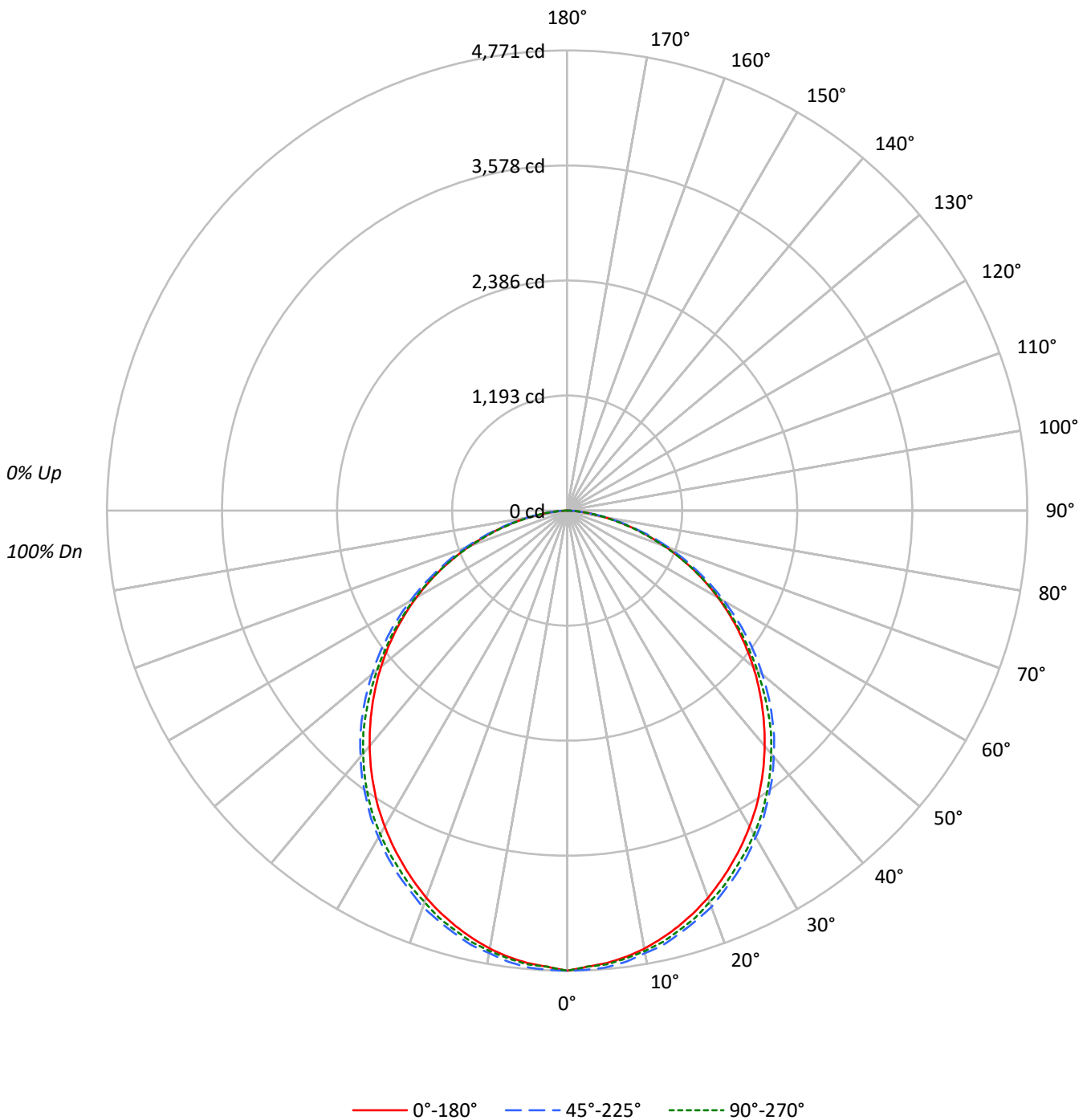
Lumens per Lamp: N/A  
Luminaire Lumens: 12542.8 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 108  
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°	12838	12838	12838
5°	12719	12839	12760
10°	12603	12731	12669
15°	12428	12629	12540
20°	12233	12523	12373
25°	11995	12343	12201
30°	11752	12151	12039
35°	11488	11943	11832
40°	11189	11704	11556
45°	10875	11424	11208
50°	10548	11058	10769
55°	10165	10641	10314
60°	9732	10136	9823
65°	9172	9524	9179
70°	8440	8780	8345
75°	7432	7768	7318
80°	6039	6301	5969
85°	4205	4480	4375



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	449.3	3.6
10°-20°	1273.3	10.2
20°-30°	1899.0	15.1
30°-40°	2250.4	17.9
40°-50°	2277.0	18.2
50°-60°	1988.6	15.9
60°-70°	1453.2	11.6
70°-80°	773.2	6.2
80°-90°	178.7	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°	3621.6	28.9
0°-40°	5872.0	46.8
0°-60°	10137.6	80.8
0°-90°	12542.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12542.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4771	4771	4771	4771	4771	
5°	4709	4718	4753	4764	4724	446
15°	4461	4491	4533	4561	4501	1258
25°	4040	4089	4157	4172	4109	1861
35°	3497	3552	3636	3661	3602	2187
45°	2858	2908	3002	3004	2945	2205
55°	2167	2210	2268	2235	2198	1937
65°	1440	1470	1496	1466	1442	1425
75°	715	731	747	720	704	760
85°	136	139	145	147	142	172
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4770.8	4770.8	4770.8	4770.8	4770.8
2.5°	4733.6	4749.0	4764.9	4771.8	4733.1
5°	4708.7	4717.6	4752.9	4763.9	4723.6
7.5°	4667.9	4681.4	4715.7	4720.6	4681.9
10°	4612.3	4636.1	4659.0	4683.8	4636.6
12.5°	4541.2	4573.5	4612.3	4616.7	4581.0
15°	4461.2	4491.0	4533.2	4560.6	4501.4
17.5°	4371.7	4400.5	4455.2	4460.2	4424.4
20°	4271.8	4307.6	4373.2	4384.6	4320.5
22.5°	4158.5	4206.7	4261.3	4272.3	4225.1
25°	4039.7	4089.4	4157.0	4172.4	4109.2
27.5°	3915.4	3963.1	4039.2	4050.1	3996.9
30°	3782.2	3826.9	3910.4	3928.8	3874.6
32.5°	3647.0	3691.7	3784.2	3799.6	3746.9
35°	3496.9	3551.5	3635.5	3660.9	3601.7
37.5°	3343.8	3396.9	3492.4	3515.2	3451.6
40°	3185.2	3237.9	3331.8	3350.7	3289.6
42.5°	3023.2	3075.8	3176.2	3179.2	3128.5
45°	2857.6	2908.3	3001.8	3004.3	2945.1
47.5°	2689.6	2740.8	2824.3	2814.9	2759.2
50°	2519.6	2568.3	2641.4	2622.5	2572.3
52.5°	2343.7	2390.9	2460.0	2429.2	2381.9
55°	2166.7	2210.5	2268.1	2235.3	2198.5
57.5°	1988.3	2032.5	2076.7	2043.4	2011.6
60°	1808.3	1847.1	1883.4	1849.6	1825.2
62.5°	1625.4	1658.7	1690.0	1657.7	1634.8
65°	1440.5	1469.8	1495.7	1465.8	1441.5
67.5°	1256.6	1281.4	1305.3	1274.5	1249.1
70°	1072.7	1094.0	1115.9	1084.1	1060.7
72.5°	891.2	910.1	929.5	898.7	878.3
75°	714.8	731.2	747.1	719.8	703.8
77.5°	546.3	560.2	571.1	553.7	538.3
80°	389.7	400.1	406.6	399.6	385.2
82.5°	250.5	258.0	261.5	261.0	251.5
85°	136.2	138.7	145.1	146.6	141.7
87.5°	52.7	56.2	57.7	62.1	57.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)