

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: P189183

Luminaire Tested: **MAE-G-2-LD4-UNV-AMBIENT-1STD-40-WDDCPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P189183  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27581)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-2-LD4-UNV-AMBIENT-1STD-40-WDDCPH  
Description: FAILSAFE 2X2 LED MEDICAL AMBIENT LUMINAIRE  
Light Source: (42) 4000K NICHIA LEDS  
2UT119028A8404A  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1431.0 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.27 / 1.32  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
CIE Type: Direct

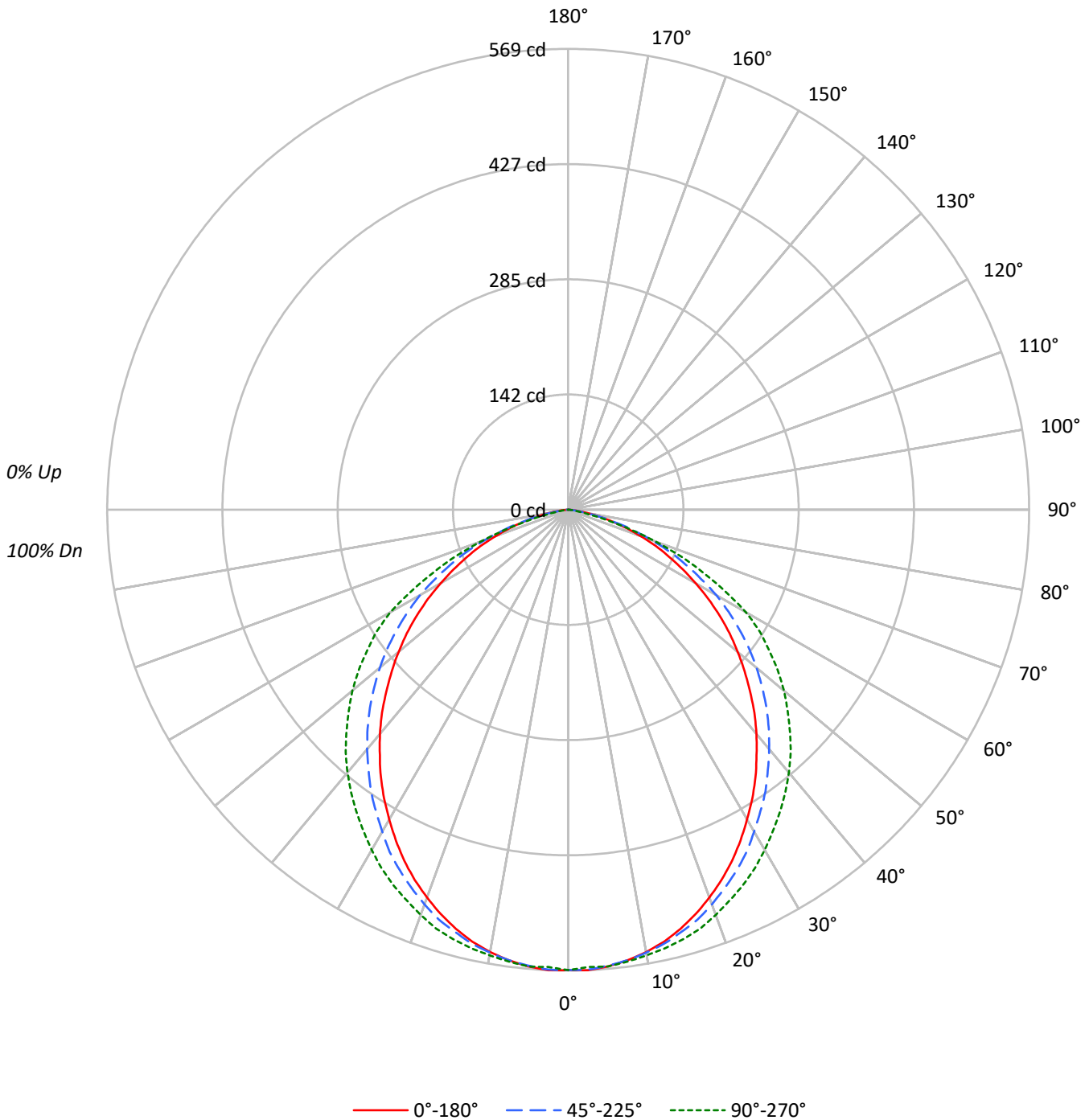
Input Watts (W): 17.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	82	74	68	90	80	73	67	77	71	66	75	70	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	34	28	40	33	28	39	33	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6155	6155	6155
5°	6152	6143	6152
10°	6097	6106	6142
15°	6006	6052	6152
20°	5871	5975	6135
25°	5717	5873	6108
30°	5522	5737	6064
35°	5330	5612	6023
40°	5110	5456	5989
45°	4859	5299	5925
50°	4602	5111	5856
55°	4308	4863	5713
60°	3933	4570	5490
65°	3521	4087	4715
70°	3005	3445	3600
75°	2326	2498	2021
80°	1528	1328	717
85°	808	609	410



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.7	3.8
10°-20°	152.6	10.7
20°-30°	226.8	15.9
30°-40°	266.7	18.6
40°-50°	269.2	18.8
50°-60°	233.7	16.3
60°-70°	159.1	11.1
70°-80°	62.0	4.3
80°-90°	7.4	0.5
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°	433.0	30.3
0°-40°	699.7	48.9
0°-60°	1202.6	84.0
0°-90°	1431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1431.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	566	565	565	565	566	54
15°	536	536	540	546	549	151
25°	478	481	492	504	511	220
35°	403	408	424	444	456	252
45°	317	326	346	373	387	245
55°	228	236	258	287	303	204
65°	137	144	160	177	184	136
75°	56	59	60	54	48	61
85°	6	6	5	4	3	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	568.4	568.4	568.4	568.4	568.4
2.5°	569.2	569.2	568.4	566.0	565.1
5°	566.0	565.1	565.1	565.1	566.0
7.5°	561.1	561.1	561.1	561.9	562.7
10°	554.5	554.5	555.3	557.0	558.6
12.5°	546.3	547.2	548.8	552.1	554.5
15°	535.7	536.5	539.8	545.5	548.8
17.5°	523.4	525.9	530.8	537.3	542.2
20°	509.5	512.0	518.5	526.7	532.4
22.5°	494.8	497.3	505.4	515.3	521.8
25°	478.5	480.9	491.5	503.8	511.2
27.5°	460.5	463.7	476.8	489.9	498.9
30°	441.6	445.7	458.8	475.2	485.0
32.5°	422.8	427.7	441.6	460.5	470.3
35°	403.2	408.1	424.5	444.1	455.6
37.5°	381.9	387.7	404.8	428.6	440.0
40°	361.5	367.2	386.0	411.4	423.7
42.5°	340.2	346.8	366.4	392.6	406.5
45°	317.3	325.5	346.0	372.9	386.9
47.5°	295.3	302.6	324.7	352.5	367.2
50°	273.2	281.3	303.4	332.1	347.6
52.5°	251.1	258.4	281.3	310.0	326.3
55°	228.2	235.5	257.6	287.1	302.6
57.5°	205.3	214.3	234.7	263.4	280.5
60°	181.6	189.7	211.0	239.6	253.5
62.5°	159.5	166.8	184.8	211.8	218.4
65°	137.4	143.9	159.5	176.7	184.0
67.5°	117.0	121.9	135.8	147.2	150.5
70°	94.9	99.8	108.8	115.3	113.7
72.5°	75.2	78.5	84.2	83.4	79.3
75°	55.6	58.9	59.7	54.0	48.3
77.5°	39.3	40.9	38.4	30.3	24.5
80°	24.5	25.4	21.3	13.1	11.5
82.5°	13.9	13.9	9.8	8.2	6.5
85°	6.5	6.5	4.9	4.1	3.3
87.5°	2.5	2.5	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)