

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: P189193

Luminaire Tested: **MAE-G-2-LD4-UNV-EXAM-LO-40-WDDCPH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189193
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27478)
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-EXAM-LO-40-WDDCPH
Description: FAILSAFE 2X4 LED MEDICAL EXAM LUMINAIRE
Light Source: (84) 4000K NICHIA LEDS
2UT119028A8404A
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1358.0 lumens
Efficiency: N/A
Efficacy: 55.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.04 / 1.21
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

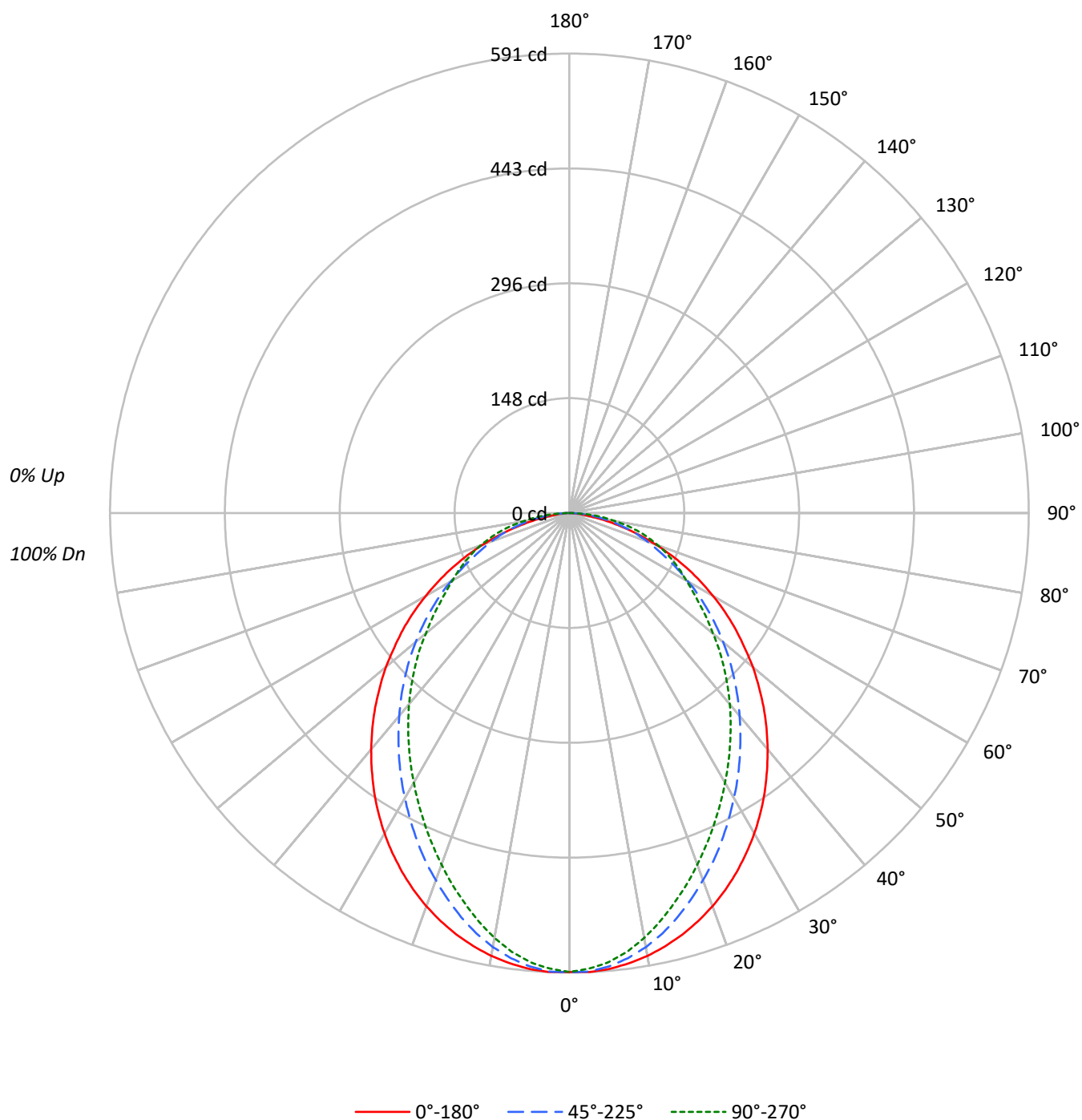
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	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			100
1	109	105	101	97	107	102	99	95		98	95	92			94	92	89			85
2	100	92	85	80	97	90	84	79		86	81	77			83	79	75			71
3	91	81	73	67	89	80	72	66		77	70	65			74	69	64			61
4	84	72	64	57	82	71	63	57		68	62	56			66	60	55			52
5	77	65	56	50	75	64	56	49		62	54	49			60	53	48			46
6	72	59	50	44	70	58	50	44		56	49	43			54	48	43			40
7	67	53	45	39	65	53	45	39		51	44	39			50	43	38			36
8	62	49	41	35	61	48	40	35		47	40	35			46	39	34			32
9	58	45	37	32	57	44	37	32		43	36	31			42	36	31			29
10	55	42	34	29	53	41	34	29		40	33	29			39	33	29			27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6392	6392	6392
5°	6398	6362	6302
10°	6360	6232	6102
15°	6291	6031	5826
20°	6202	5791	5545
25°	6084	5548	5267
30°	5948	5293	5007
35°	5790	5051	4766
40°	5609	4815	4536
45°	5410	4583	4303
50°	5192	4351	4063
55°	4935	4102	3863
60°	4628	3825	3760
65°	4256	3546	3795
70°	3733	3366	3847
75°	3033	3196	3883
80°	2158	2937	3767
85°	1242	2547	3616



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.2	4.1
10°-20°	151.5	11.2
20°-30°	216.1	15.9
30°-40°	244.3	18.0
40°-50°	237.8	17.5
50°-60°	201.1	14.8
60°-70°	146.3	10.8
70°-80°	82.9	6.1
80°-90°	22.7	1.7
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°	422.8	31.1
0°-40°	667.1	49.1
0°-60°	1106.1	81.4
0°-90°	1358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1358.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	589	588	585	578	580	56
15°	561	555	538	521	520	158
25°	509	494	464	444	441	234
35°	438	417	382	364	360	274
45°	353	331	299	286	281	272
55°	261	241	217	207	205	233
65°	166	150	138	145	148	164
75°	72	65	76	88	93	78
85°	10	13	20	26	29	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	590.3	590.3	590.3	590.3	590.3
2.5°	590.8	591.7	590.3	584.5	586.4
5°	588.6	588.4	585.3	578.1	579.8
7.5°	584.2	582.8	577.3	568.1	569.0
10°	578.4	575.6	566.8	554.9	554.9
12.5°	570.6	566.2	553.5	538.8	538.2
15°	561.2	555.1	538.0	520.8	519.7
17.5°	550.4	542.4	520.8	502.0	501.1
20°	538.2	528.0	502.5	483.1	481.2
22.5°	524.4	511.9	484.3	464.0	461.0
25°	509.2	494.5	464.3	444.1	440.8
27.5°	493.1	476.5	443.8	423.9	420.6
30°	475.7	457.4	423.3	404.0	400.4
32.5°	457.4	437.5	403.1	384.3	380.7
35°	438.0	416.7	382.1	364.4	360.5
37.5°	417.5	396.2	361.3	344.7	340.6
40°	396.8	374.9	340.6	324.8	320.9
42.5°	375.2	353.3	320.1	305.1	301.0
45°	353.3	330.9	299.3	285.5	281.0
47.5°	330.6	309.0	279.1	265.8	261.9
50°	308.2	286.6	258.3	246.1	241.2
52.5°	283.8	263.6	237.8	226.2	222.6
55°	261.4	240.9	217.3	207.1	204.6
57.5°	237.6	218.5	197.1	189.7	188.3
60°	213.7	195.5	176.6	173.0	173.6
62.5°	189.7	172.2	157.3	158.1	161.1
65°	166.1	149.5	138.4	145.1	148.1
67.5°	141.8	127.4	121.5	131.8	135.1
70°	117.9	104.7	106.3	117.4	121.5
72.5°	94.7	84.2	91.4	103.3	107.2
75°	72.5	65.1	76.4	88.3	92.8
77.5°	52.3	48.5	61.5	72.8	77.5
80°	34.6	35.2	47.1	57.3	60.4
82.5°	20.5	23.3	33.2	41.3	44.3
85°	10.0	13.3	20.5	26.3	29.1
87.5°	3.3	5.5	8.9	10.0	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)