

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: P189195

Luminaire Tested: **MAE-G-4-LD4-UNV-EXAM-LO-40-WDDCPH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189195
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-4-LD4-UNV-EXAM-LO-40-WDDCPH
Description: FAILSAFE 2X4 LED MEDICAL EXAM LUMINAIRE
Light Source: (168) 4000K NICHIA LEDS
2UT119028A8404A
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3031.9 lumens
Efficiency: N/A
Efficacy: 61.4 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

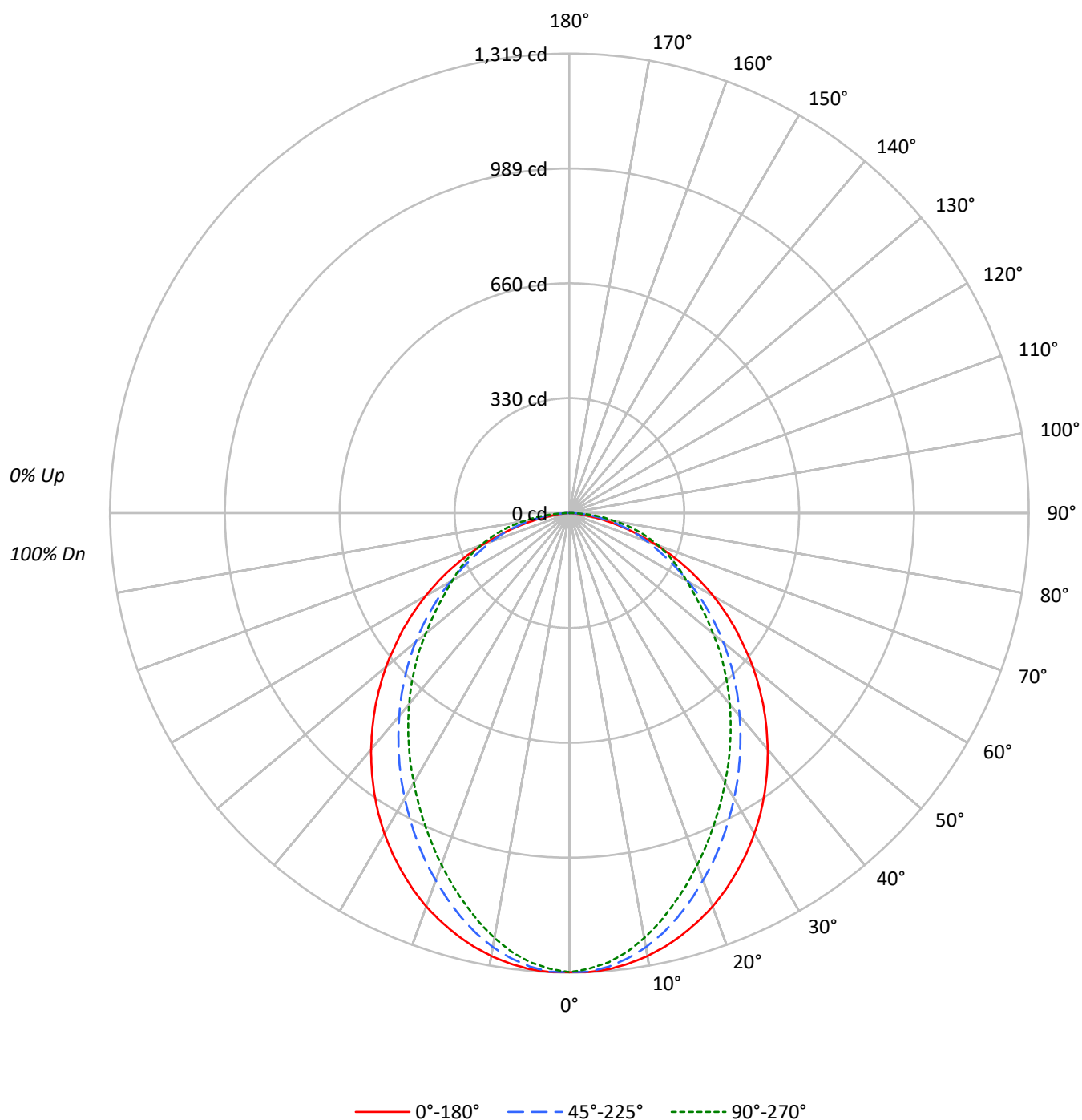
Input Watts (W): 49.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85		
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71		
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61		
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52		
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46		
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	42	40		
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	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	32	57	44	37	32	43	36	31	42	36	31	41	35	31	29		
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14271	14271	14271
5°	14285	14204	14070
10°	14199	13913	13620
15°	14047	13464	13007
20°	13848	12928	12380
25°	13581	12385	11758
30°	13279	11817	11176
35°	12927	11276	10639
40°	12522	10747	10127
45°	12078	10233	9608
50°	11590	9715	9070
55°	11016	9160	8624
60°	10335	8542	8394
65°	9504	7920	8473
70°	8336	7516	8593
75°	6778	7138	8665
80°	4820	6554	8406
85°	2771	5678	8064



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	4.1
10°-20°	338.3	11.2
20°-30°	482.4	15.9
30°-40°	545.5	18.0
40°-50°	531.0	17.5
50°-60°	449.1	14.8
60°-70°	326.7	10.8
70°-80°	185.1	6.1
80°-90°	50.7	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°	943.9	31.1
0°-40°	1489.4	49.1
0°-60°	2469.4	81.4
0°-90°	3031.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3031.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1318	1318	1318	1318	1318	
5°	1314	1314	1307	1291	1294	125
15°	1253	1239	1201	1163	1160	353
25°	1137	1104	1037	992	984	523
35°	978	930	853	814	805	611
45°	789	739	668	637	627	608
55°	584	538	485	462	457	521
65°	371	334	309	324	331	366
75°	162	145	171	197	207	174
85°	22	30	46	59	65	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1317.9	1317.9	1317.9	1317.9	1317.9
2.5°	1319.1	1320.9	1317.9	1304.9	1309.2
5°	1314.2	1313.5	1306.7	1290.7	1294.4
7.5°	1304.3	1301.2	1288.8	1268.4	1270.3
10°	1291.3	1285.1	1265.3	1238.7	1238.7
12.5°	1274.0	1264.1	1235.6	1202.9	1201.7
15°	1253.0	1239.4	1201.0	1162.7	1160.2
17.5°	1228.8	1210.9	1162.7	1120.7	1118.8
20°	1201.7	1178.8	1121.9	1078.6	1074.3
22.5°	1170.7	1142.9	1081.1	1036.0	1029.2
25°	1136.7	1104.0	1036.6	991.5	984.1
27.5°	1100.9	1063.8	990.9	946.4	938.9
30°	1062.0	1021.2	945.1	901.9	893.8
32.5°	1021.2	976.6	900.0	858.0	849.9
35°	977.9	930.3	853.0	813.5	804.8
37.5°	932.1	884.5	806.7	769.6	760.3
40°	885.8	837.0	760.3	725.1	716.4
42.5°	837.6	788.7	714.6	681.2	671.9
45°	788.7	738.7	668.2	637.3	627.4
47.5°	738.1	689.8	623.1	593.4	584.8
50°	688.0	639.8	576.7	549.5	538.4
52.5°	633.6	588.5	531.0	505.0	497.0
55°	583.5	537.8	485.2	462.4	456.8
57.5°	530.4	487.7	440.1	423.4	420.3
60°	477.2	436.4	394.4	386.3	387.6
62.5°	423.4	384.5	351.1	353.0	359.8
65°	370.9	333.8	309.1	323.9	330.7
67.5°	316.5	284.3	271.4	294.2	301.6
70°	263.3	233.7	237.4	262.1	271.4
72.5°	211.4	187.9	204.0	230.6	239.2
75°	162.0	145.3	170.6	197.2	207.1
77.5°	116.8	108.2	137.2	162.6	173.1
80°	77.3	78.5	105.1	128.0	134.8
82.5°	45.7	51.9	74.2	92.1	98.9
85°	22.3	29.7	45.7	58.7	64.9
87.5°	7.4	12.4	19.8	22.3	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)