

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: P189194

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189194
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-STD-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: 4038.0 lumens
Efficiency: N/A
Efficacy: 58.4 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

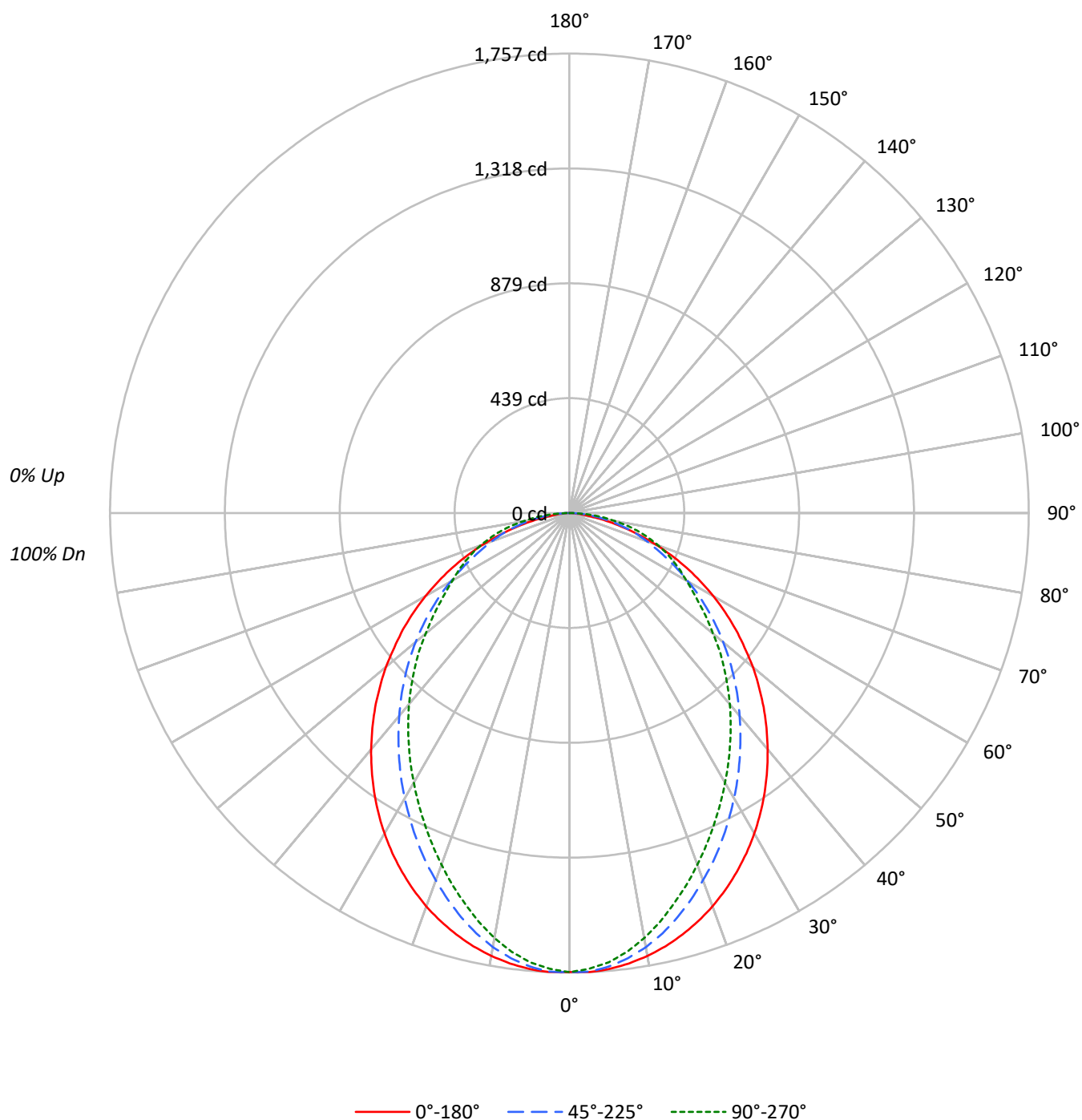
Input Watts (W): 69.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	19006	19006	19006
5°	19026	18918	18739
10°	18910	18531	18142
15°	18708	17933	17324
20°	18444	17220	16489
25°	18089	16496	15660
30°	17685	15740	14886
35°	17217	15019	14170
40°	16677	14314	13488
45°	16087	13630	12796
50°	15436	12940	12081
55°	14673	12202	11486
60°	13765	11377	11180
65°	12658	10546	11287
70°	11103	10008	11442
75°	9025	9506	11539
80°	6417	8730	11194
85°	3678	7567	10735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.0	4.1
10°-20°	450.6	11.2
20°-30°	642.5	15.9
30°-40°	726.5	18.0
40°-50°	707.2	17.5
50°-60°	598.1	14.8
60°-70°	435.0	10.8
70°-80°	246.5	6.1
80°-90°	67.6	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°	1257.1	31.1
0°-40°	1983.7	49.1
0°-60°	3288.9	81.4
0°-90°	4038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4038.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1755	1755	1755	1755	1755	
5°	1750	1750	1740	1719	1724	166
15°	1669	1651	1600	1549	1545	470
25°	1514	1470	1381	1320	1311	697
35°	1302	1239	1136	1083	1072	814
45°	1050	984	890	849	836	810
55°	777	716	646	616	608	694
65°	494	445	412	431	440	488
75°	216	194	227	263	276	232
85°	30	40	61	78	86	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1755.2	1755.2	1755.2	1755.2	1755.2
2.5°	1756.9	1759.3	1755.2	1737.9	1743.7
5°	1750.3	1749.5	1740.4	1719.0	1723.9
7.5°	1737.1	1733.0	1716.5	1689.4	1691.8
10°	1719.8	1711.6	1685.3	1649.9	1649.9
12.5°	1696.8	1683.6	1645.7	1602.1	1600.5
15°	1668.8	1650.7	1599.6	1548.6	1545.3
17.5°	1636.7	1612.8	1548.6	1492.6	1490.1
20°	1600.5	1570.0	1494.3	1436.6	1430.9
22.5°	1559.3	1522.2	1439.9	1379.8	1370.8
25°	1514.0	1470.4	1380.6	1320.5	1310.7
27.5°	1466.3	1416.9	1319.7	1260.4	1250.6
30°	1414.4	1360.1	1258.8	1201.2	1190.5
32.5°	1360.1	1300.8	1198.7	1142.7	1132.0
35°	1302.4	1239.0	1136.1	1083.4	1071.9
37.5°	1241.5	1178.1	1074.4	1025.0	1012.6
40°	1179.8	1114.7	1012.6	965.7	954.2
42.5°	1115.5	1050.5	951.7	907.3	894.9
45°	1050.5	983.8	890.0	848.8	835.6
47.5°	983.0	918.8	829.9	790.3	778.8
50°	916.3	852.1	768.1	731.9	717.1
52.5°	843.9	783.8	707.2	672.6	661.9
55°	777.2	716.3	646.3	615.8	608.4
57.5°	706.4	649.6	586.2	563.9	559.8
60°	635.6	581.2	525.3	514.5	516.2
62.5°	563.9	512.1	467.6	470.1	479.1
65°	494.0	444.6	411.6	431.4	440.5
67.5°	421.5	378.7	361.4	391.9	401.8
70°	350.7	311.2	316.1	349.1	361.4
72.5°	281.6	250.3	271.7	307.1	318.6
75°	215.7	193.5	227.2	262.6	275.8
77.5°	155.6	144.1	182.8	216.5	230.5
80°	102.9	104.6	140.0	170.4	179.5
82.5°	60.9	69.2	98.8	122.7	131.7
85°	29.6	39.5	60.9	78.2	86.4
87.5°	9.9	16.5	26.3	29.6	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)