

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: P183416

Luminaire Tested: **FMS-24-2-LD4-3STD-80-84**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183416
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26876)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMS-24-2-LD4-3STD-80-84
Description:
Light Source: 2UT217042A8404A
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3827.0 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.98 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

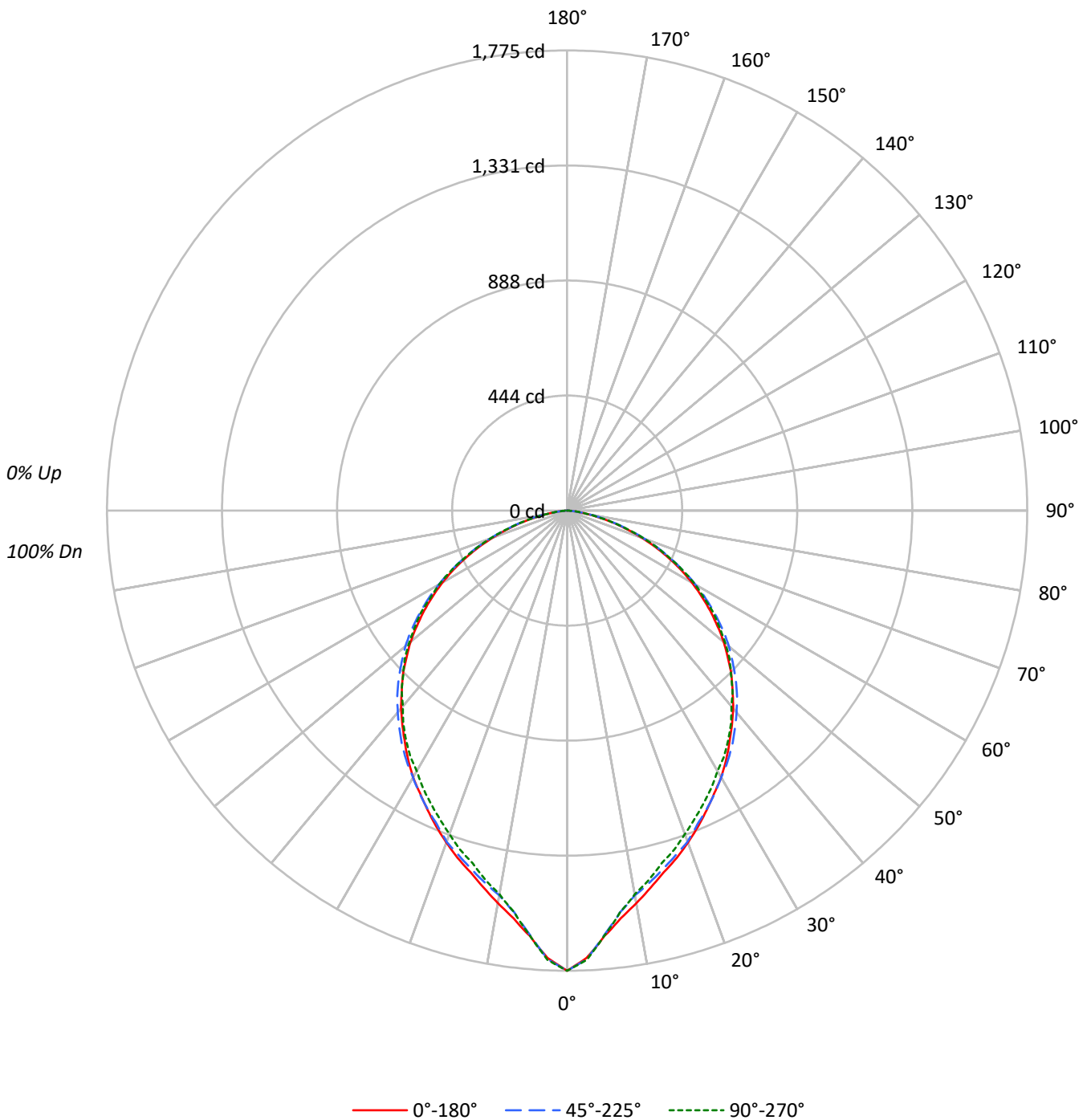
Input Watts (W): 51.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72					72			
3	91	81	73	67	89	80	72	67	77	70	65	74	69	64	71	67	63	61					61			
4	84	72	64	57	82	71	63	57	68	61	56	66	60	55	64	59	55	52					52			
5	77	65	56	49	75	64	55	49	61	54	49	60	53	48	58	52	48	46					46			
6	71	58	50	43	70	57	49	43	56	48	43	54	47	42	52	47	42	40					40			
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	36					36			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32					32			
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29					29			
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4777	4777	4777
5°	4451	4438	4447
10°	4201	4117	4106
15°	4021	3986	3924
20°	3901	3892	3802
25°	3782	3775	3699
30°	3692	3694	3604
35°	3586	3642	3556
40°	3501	3570	3463
45°	3412	3497	3403
50°	3301	3408	3335
55°	3157	3269	3231
60°	2990	3080	3070
65°	2749	2823	2812
70°	2410	2488	2488
75°	1932	2009	2000
80°	1317	1407	1395
85°	689	738	664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.0	4.0
10°-20°	403.4	10.5
20°-30°	584.9	15.3
30°-40°	688.7	18.0
40°-50°	701.9	18.3
50°-60°	617.4	16.1
60°-70°	437.9	11.4
70°-80°	205.9	5.4
80°-90°	33.9	0.9
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°	1141.3	29.8
0°-40°	1830.0	47.8
0°-60°	3149.3	82.3
0°-90°	3827.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3827.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1775	1775	1775	1775	1775	
5°	1648	1646	1643	1640	1646	154
15°	1443	1442	1431	1418	1408	408
25°	1274	1279	1272	1260	1246	588
35°	1092	1113	1109	1101	1082	684
45°	897	916	919	912	894	690
55°	673	690	697	699	689	601
65°	432	442	443	448	442	427
75°	186	191	193	194	192	199
85°	22	23	24	22	22	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1775.1	1775.1	1775.1	1775.1	1775.1
2.5°	1727.2	1732.2	1731.3	1734.6	1734.6
5°	1647.9	1646.3	1643.0	1640.5	1646.3
7.5°	1586.0	1579.4	1563.7	1558.0	1563.7
10°	1537.3	1524.1	1506.8	1503.5	1502.6
12.5°	1489.4	1482.0	1469.6	1454.7	1458.9
15°	1443.2	1442.4	1430.8	1417.6	1408.5
17.5°	1405.2	1401.9	1393.7	1383.7	1372.2
20°	1362.3	1366.4	1359.0	1344.1	1327.6
22.5°	1319.3	1323.5	1311.1	1305.3	1286.3
25°	1273.9	1278.9	1271.5	1259.9	1245.9
27.5°	1229.4	1240.1	1231.8	1219.4	1205.4
30°	1188.1	1196.3	1188.9	1179.8	1160.0
32.5°	1141.0	1158.3	1150.1	1137.7	1125.3
35°	1091.5	1112.9	1108.8	1100.6	1082.4
37.5°	1043.6	1065.9	1062.6	1052.7	1037.8
40°	996.5	1017.2	1016.3	1008.9	985.8
42.5°	944.5	964.3	970.1	960.2	944.5
45°	896.6	916.4	918.9	911.5	894.1
47.5°	840.5	860.3	866.1	864.4	849.6
50°	788.5	806.6	814.1	809.1	796.7
52.5°	730.7	750.5	757.9	757.1	741.4
55°	672.9	690.2	696.8	699.3	688.6
57.5°	614.3	631.6	635.7	638.2	625.0
60°	555.6	568.9	572.2	577.9	570.5
62.5°	494.5	505.3	507.8	513.5	506.9
65°	431.8	442.5	443.4	448.3	441.7
67.5°	368.2	377.3	381.4	383.9	379.0
70°	306.3	312.1	316.2	317.9	316.2
72.5°	244.4	250.2	252.6	254.3	251.8
75°	185.8	190.7	193.2	194.0	192.4
77.5°	131.3	136.2	139.5	137.9	136.2
80°	85.0	89.2	90.8	90.0	90.0
82.5°	47.9	50.4	52.0	50.4	50.4
85°	22.3	23.1	23.9	22.3	21.5
87.5°	7.4	7.4	7.4	5.8	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)