

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: P183414

Luminaire Tested: **FMS-24-2-LD4-4STD-80-84**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183414
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26875)
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-LD4-4STD-80-84
Description:
Light Source: 2UT217042A8404A
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5117.5 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 0.98 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

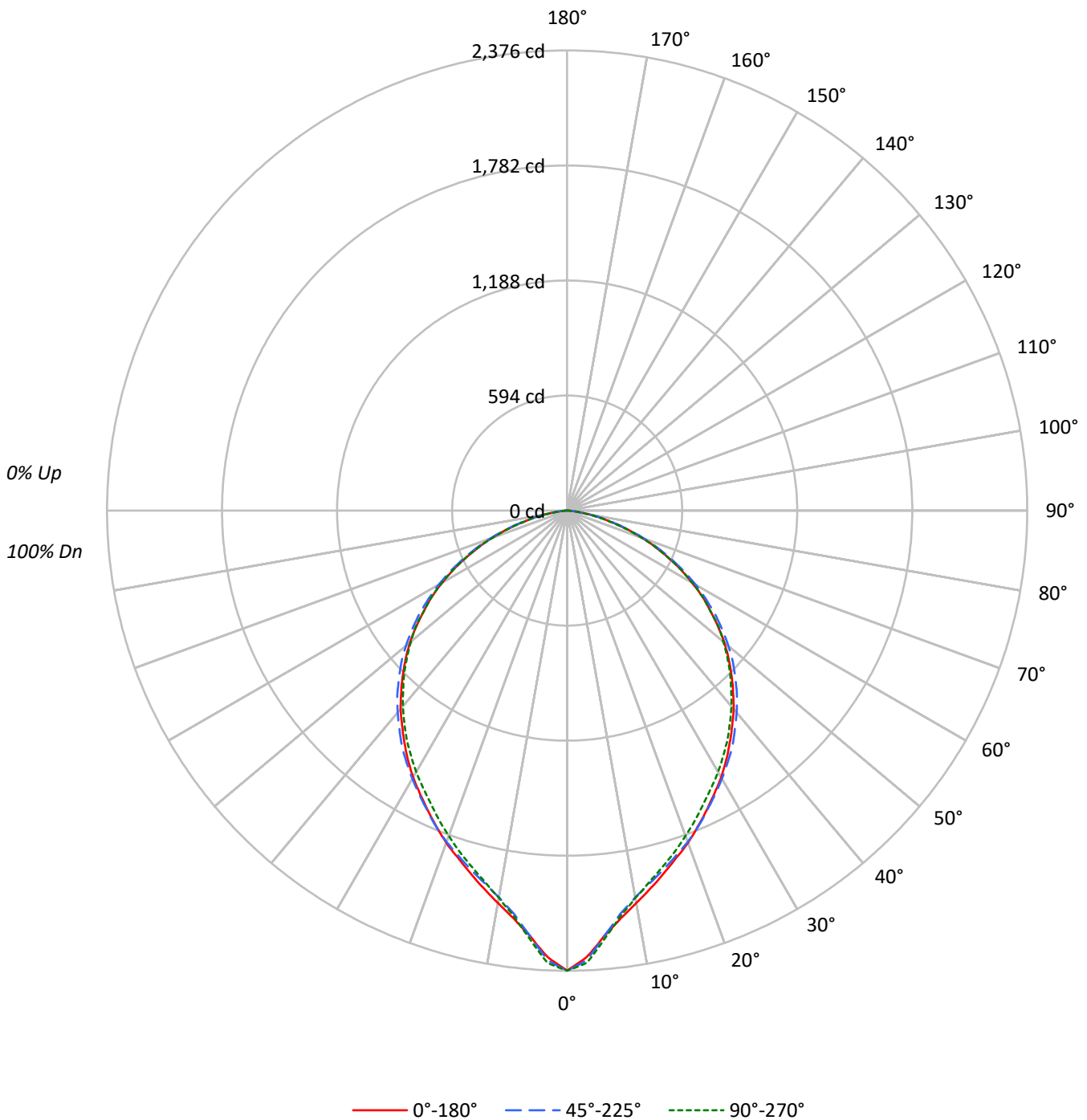
Input Watts (W): 69.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6392	6392	6392
5°	5955	5953	5995
10°	5622	5541	5548
15°	5394	5348	5305
20°	5228	5214	5119
25°	5063	5073	4952
30°	4944	4964	4844
35°	4809	4883	4741
40°	4699	4783	4638
45°	4569	4676	4531
50°	4435	4552	4407
55°	4238	4370	4238
60°	4013	4124	4017
65°	3675	3780	3691
70°	3242	3327	3229
75°	2601	2696	2549
80°	1830	1894	1753
85°	969	1019	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.6	4.0
10°-20°	541.8	10.6
20°-30°	785.0	15.3
30°-40°	921.9	18.0
40°-50°	937.8	18.3
50°-60°	822.7	16.1
60°-70°	582.7	11.4
70°-80°	274.0	5.4
80°-90°	46.0	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°	1532.4	29.9
0°-40°	2454.3	48.0
0°-60°	4214.8	82.4
0°-90°	5117.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5117.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2376	2376	2376	2376	2376	
5°	2205	2207	2204	2214	2220	206
15°	1936	1935	1920	1912	1904	546
25°	1705	1717	1708	1697	1668	787
35°	1464	1491	1486	1468	1443	917
45°	1201	1224	1229	1217	1191	926
55°	903	928	931	922	903	808
65°	577	596	594	586	580	572
75°	250	258	259	253	245	270
85°	31	33	33	30	27	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2375.5	2375.5	2375.5	2375.5	2375.5
2.5°	2307.8	2318.6	2323.5	2332.6	2337.5
5°	2204.6	2207.1	2203.8	2214.5	2219.5
7.5°	2122.9	2119.6	2100.6	2104.7	2111.3
10°	2057.6	2046.9	2027.9	2023.0	2030.4
12.5°	1996.5	1989.1	1970.1	1962.7	1963.5
15°	1936.3	1934.6	1919.7	1911.5	1904.1
17.5°	1878.5	1880.1	1868.6	1857.8	1847.1
20°	1825.6	1825.6	1820.7	1806.6	1787.6
22.5°	1764.5	1775.2	1767.8	1753.8	1729.0
25°	1705.1	1717.4	1708.4	1696.8	1667.9
27.5°	1646.4	1662.1	1653.9	1635.7	1612.6
30°	1591.1	1604.3	1597.7	1580.4	1558.9
32.5°	1528.4	1549.0	1543.2	1526.7	1500.3
35°	1464.0	1491.2	1486.3	1468.1	1443.3
37.5°	1399.6	1425.2	1422.7	1409.5	1380.6
40°	1337.6	1361.6	1361.6	1344.2	1320.3
42.5°	1268.3	1295.5	1298.0	1280.7	1253.4
45°	1200.6	1224.5	1228.6	1217.1	1190.7
47.5°	1130.4	1152.7	1160.9	1146.1	1121.3
50°	1059.4	1078.4	1087.4	1077.5	1052.8
52.5°	980.9	1004.9	1009.0	999.9	985.9
55°	903.3	928.1	931.4	921.5	903.3
57.5°	828.2	852.1	848.0	843.9	828.2
60°	745.6	766.2	766.2	756.3	746.4
62.5°	663.9	684.5	681.2	672.9	664.7
65°	577.2	596.2	593.7	586.2	579.6
67.5°	494.6	511.1	507.0	502.0	495.4
70°	412.0	423.6	422.8	417.0	410.4
72.5°	328.6	338.5	337.7	332.8	327.8
75°	250.2	258.4	259.3	252.7	245.2
77.5°	180.8	186.6	186.6	179.2	175.9
80°	118.1	121.4	122.2	116.4	113.1
82.5°	67.7	69.4	71.0	66.1	61.9
85°	31.4	33.0	33.0	29.7	27.2
87.5°	11.6	11.6	11.6	9.9	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)