

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: P183419

Luminaire Tested: **FMS-24-4-LD4-3LO-80-84**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183419
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26874)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMS-24-4-LD4-3LO-80-84
Description:
Light Source: 2UT217042A8404A
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7526.1 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.19 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

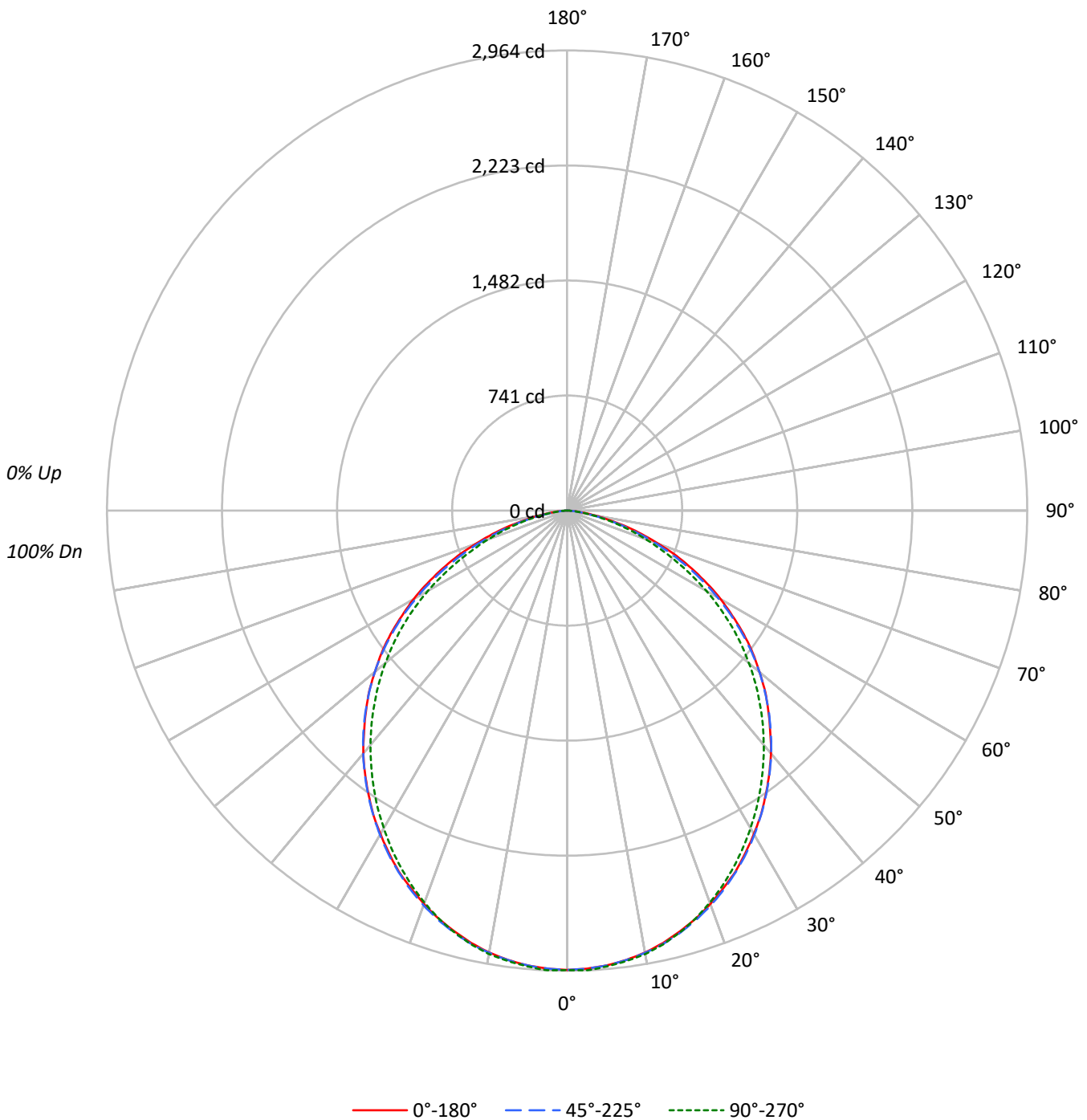
Input Watts (W): 74.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	107	103	99	96	99	96	93		95	92	90		91	89	88	85
2	100	92	86	80	98	90	85	80	87	82	78		84	80	76		81	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	84	72	64	58	82	71	63	57	69	62	56		66	60	56		64	59	55	53
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	49	43	56	48	43		54	48	43		53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38		49	43	38		48	42	38	36
8	62	49	40	35	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°	3981	3981	3981
5°	3972	3972	3981
10°	3950	3952	3963
15°	3908	3920	3917
20°	3861	3874	3848
25°	3808	3814	3764
30°	3737	3748	3670
35°	3665	3671	3572
40°	3588	3590	3461
45°	3490	3497	3340
50°	3385	3385	3201
55°	3257	3227	3026
60°	3080	3009	2789
65°	2820	2718	2471
70°	2471	2324	2112
75°	2009	1828	1702
80°	1416	1247	1199
85°	719	651	662



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.5	3.7
10°-20°	793.1	10.5
20°-30°	1179.9	15.7
30°-40°	1388.9	18.5
40°-50°	1399.0	18.6
50°-60°	1206.3	16.0
60°-70°	833.3	11.1
70°-80°	382.1	5.1
80°-90°	64.1	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°	2252.5	29.9
0°-40°	3641.4	48.4
0°-60°	6246.7	83.0
0°-90°	7526.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7526.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2959	2959	2959	2959	2959	
5°	2940	2943	2941	2948	2947	279
15°	2806	2810	2814	2819	2812	791
25°	2565	2570	2569	2557	2535	1180
35°	2231	2240	2235	2206	2174	1396
45°	1834	1836	1838	1791	1755	1415
55°	1388	1368	1376	1322	1290	1238
65°	886	872	854	810	776	877
75°	386	377	352	334	327	413
85°	47	46	42	42	43	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2959.1	2959.1	2959.1	2959.1	2959.1
2.5°	2952.9	2954.8	2952.3	2960.4	2964.1
5°	2940.5	2943.0	2941.1	2947.9	2947.3
7.5°	2919.4	2921.2	2920.0	2928.1	2926.8
10°	2890.8	2891.4	2892.7	2902.6	2900.7
12.5°	2852.3	2855.4	2859.1	2865.9	2861.0
15°	2805.7	2810.0	2814.4	2818.7	2811.9
17.5°	2756.0	2759.7	2764.0	2765.3	2754.1
20°	2696.3	2704.4	2705.7	2701.9	2687.6
22.5°	2631.7	2641.0	2640.4	2633.0	2614.9
25°	2565.2	2570.2	2569.0	2557.2	2535.4
27.5°	2487.0	2496.9	2493.8	2477.0	2451.5
30°	2405.6	2416.8	2412.4	2391.3	2362.1
32.5°	2323.6	2329.8	2324.8	2300.0	2270.8
35°	2231.0	2240.3	2234.7	2206.1	2174.5
37.5°	2138.4	2146.5	2141.5	2108.0	2073.8
40°	2042.8	2047.7	2044.0	2006.1	1970.7
42.5°	1937.1	1943.3	1942.7	1900.5	1864.4
45°	1834.0	1835.9	1837.7	1791.1	1755.1
47.5°	1731.5	1724.0	1728.4	1678.7	1643.9
50°	1617.2	1608.5	1617.2	1563.7	1529.0
52.5°	1507.8	1489.8	1498.5	1446.3	1410.9
55°	1388.5	1368.0	1375.5	1322.1	1289.8
57.5°	1261.2	1247.5	1248.1	1199.1	1164.3
60°	1144.4	1122.6	1118.3	1070.5	1036.3
62.5°	1014.5	996.5	987.8	941.2	905.2
65°	885.9	872.3	853.6	810.1	776.0
67.5°	761.7	744.9	720.7	682.2	653.0
70°	628.1	618.2	590.8	559.1	536.8
72.5°	503.2	494.5	467.2	442.3	430.5
75°	386.4	377.1	351.6	334.2	327.4
77.5°	272.1	270.3	248.5	236.7	234.2
80°	182.7	175.2	160.9	152.8	154.7
82.5°	105.0	99.4	91.3	88.8	90.1
85°	46.6	46.0	42.2	42.2	42.9
87.5°	14.3	14.9	15.5	16.2	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)