

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: P588919

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588919
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-1STD-40-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

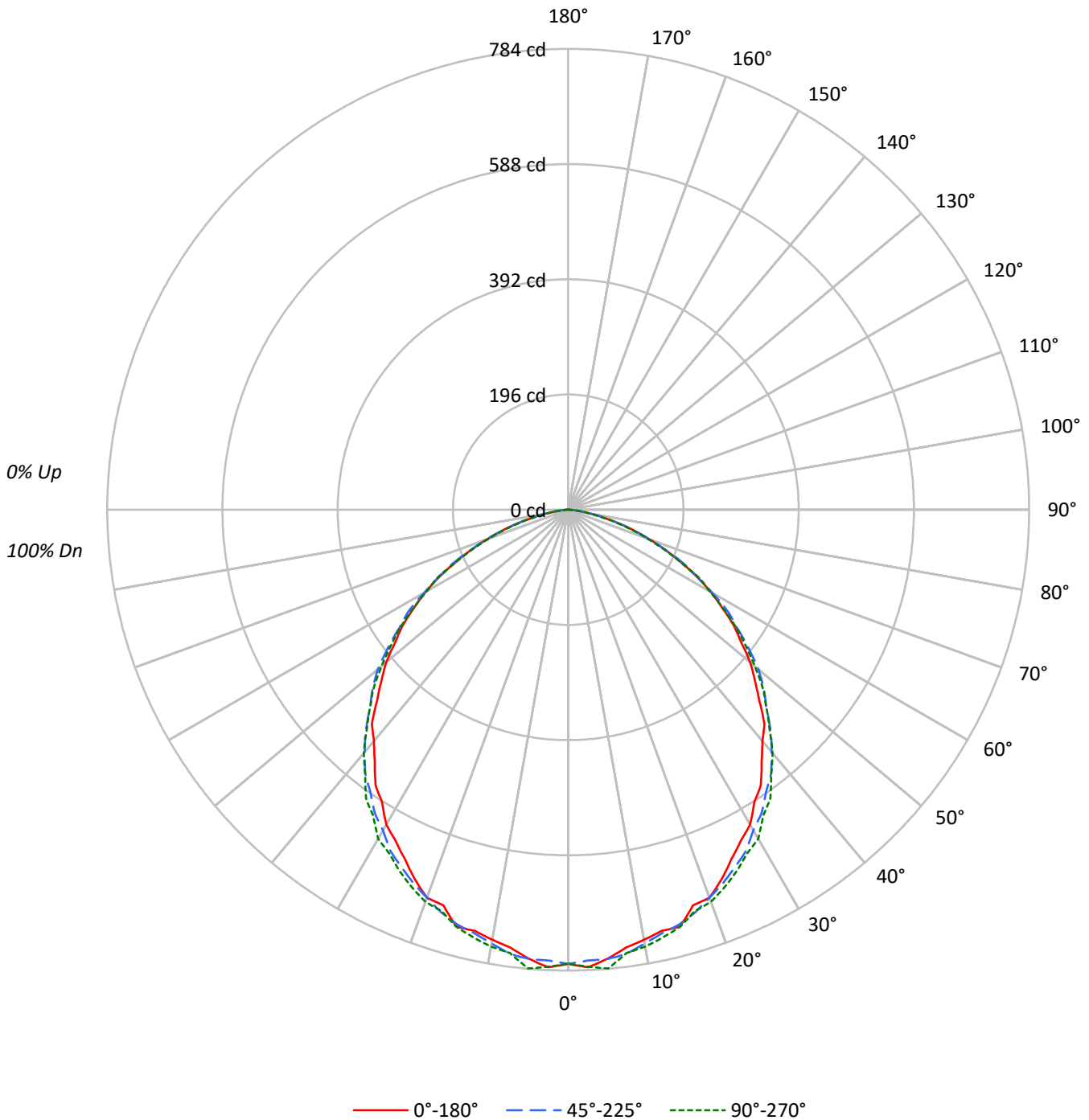
Lumens per Lamp: N/A
Luminaire Lumens: 1947.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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	100	96	99	96	93		95	93	90		91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66		75	69	65		72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57		67	61	56		65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49		60	54	49		58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43		54	48	43		53	47	43	41
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	34		46	39	34		44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31		42	36	31		41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28		39	33	28		38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2079	2079	2079
5°	2072	2073	2116
10°	2030	2048	2062
15°	2046	2035	2046
20°	2011	2011	2033
25°	1950	1992	2014
30°	1923	1957	2009
35°	1877	1927	1970
40°	1805	1891	1900
45°	1750	1812	1815
50°	1693	1769	1735
55°	1612	1644	1632
60°	1508	1523	1496
65°	1345	1379	1335
70°	1153	1157	1125
75°	914	912	876
80°	612	595	572
85°	333	330	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.7
10°-20°	205.9	10.6
20°-30°	308.6	15.8
30°-40°	365.7	18.8
40°-50°	366.4	18.8
50°-60°	311.0	16.0
60°-70°	209.7	10.8
70°-80°	92.1	4.7
80°-90°	15.0	0.8
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°	587.2	30.2
0°-40°	952.9	48.9
0°-60°	1630.2	83.7
0°-90°	1947.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1947.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	772	772	772	772	772	
5°	767	765	767	765	784	72
15°	734	726	730	734	734	205
25°	657	660	671	680	678	304
35°	572	573	586	600	600	355
45°	460	468	476	488	477	356
55°	344	341	350	348	348	306
65°	211	208	216	208	210	210
75°	88	86	88	82	84	94
85°	11	10	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.5	772.5	772.5	772.5	772.5
2.5°	779.2	773.3	767.8	774.2	778.1
5°	767.0	765.2	767.3	765.0	783.5
7.5°	751.3	758.2	762.1	759.7	760.8
10°	742.9	740.5	749.4	755.6	754.7
12.5°	733.9	737.5	738.0	744.7	745.3
15°	734.4	725.9	730.4	734.2	734.5
17.5°	705.9	715.1	718.2	726.8	716.1
20°	702.4	695.7	702.4	711.3	709.9
22.5°	681.0	673.5	687.8	695.7	695.2
25°	656.6	660.2	671.0	679.8	678.4
27.5°	635.3	639.5	654.8	666.9	659.1
30°	618.8	616.7	629.7	640.5	646.4
32.5°	589.4	597.0	612.1	622.8	617.1
35°	571.5	573.2	586.5	600.1	599.7
37.5°	540.3	548.2	566.8	570.6	567.1
40°	513.7	521.6	538.4	542.5	540.8
42.5°	494.0	495.4	509.9	514.6	507.1
45°	459.8	468.4	476.2	488.4	476.9
47.5°	430.7	434.7	451.4	454.7	448.7
50°	404.3	405.7	422.5	418.4	414.4
52.5°	371.0	376.9	386.4	385.6	380.9
55°	343.7	341.4	350.4	348.0	347.9
57.5°	310.9	314.9	322.3	318.5	312.4
60°	280.2	280.3	283.0	278.7	277.9
62.5°	246.0	247.2	247.8	242.5	251.1
65°	211.2	208.4	216.5	208.3	209.7
67.5°	179.1	180.5	179.7	174.6	176.5
70°	146.6	148.4	147.1	141.2	143.0
72.5°	116.9	114.7	116.1	108.7	112.1
75°	87.9	86.1	87.7	81.5	84.3
77.5°	59.8	61.2	60.2	57.0	58.8
80°	39.5	38.4	38.4	36.5	36.9
82.5°	23.0	21.9	21.6	21.0	21.9
85°	10.8	10.5	10.7	10.4	10.0
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)