

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: P588927

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-81-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588927
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-81-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

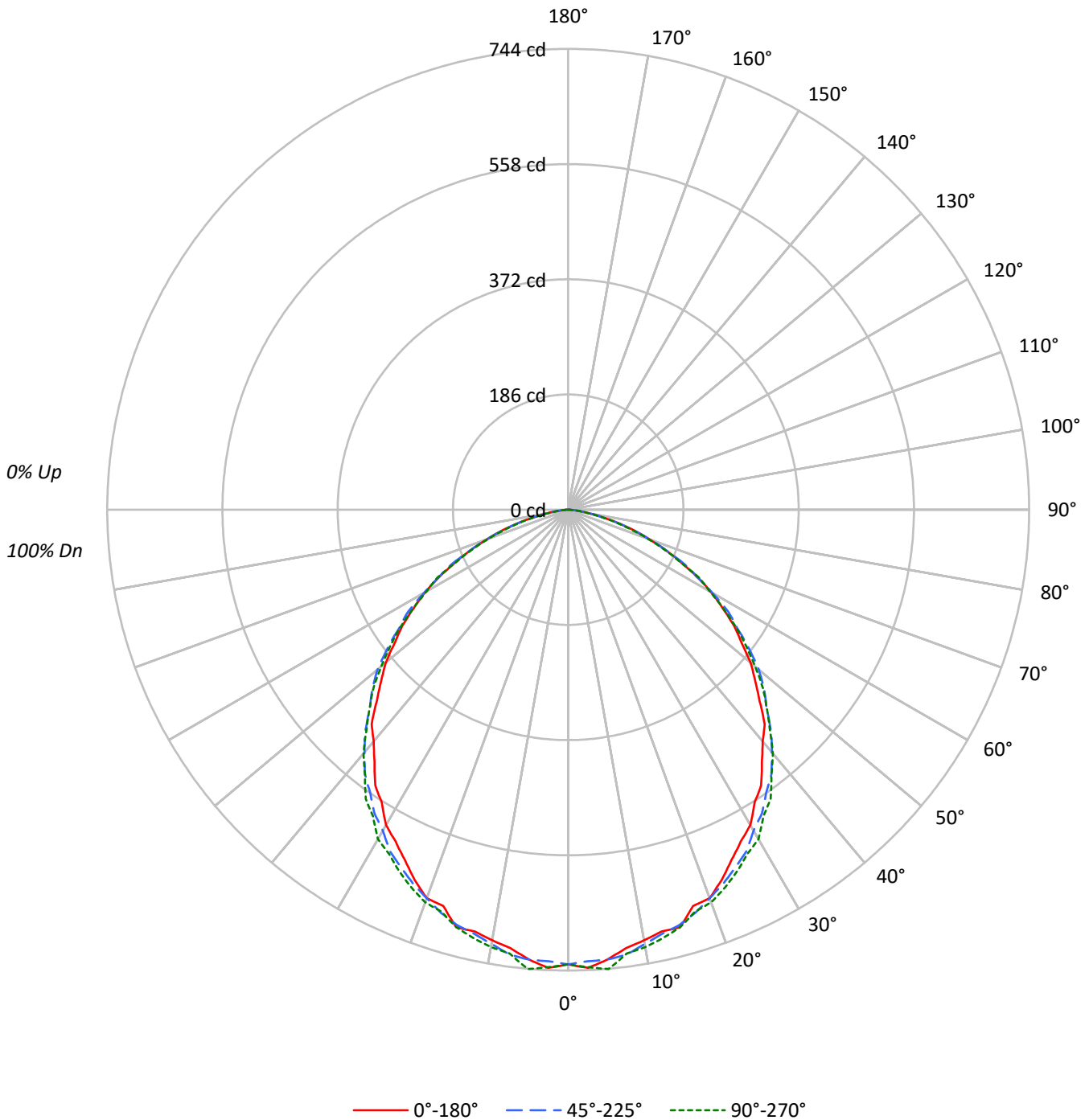
Lumens per Lamp: N/A
Luminaire Lumens: 1850.0 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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																		
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	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	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86									86																			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73									73																			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62									62																			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53									53																			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46									46																			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41									41																			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36									36																			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32									32																			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29									29																			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26									26																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1975	1975	1975
5°	1969	1969	2011
10°	1929	1946	1959
15°	1944	1933	1944
20°	1911	1911	1932
25°	1852	1893	1914
30°	1827	1859	1908
35°	1784	1831	1872
40°	1715	1797	1805
45°	1663	1722	1724
50°	1608	1681	1649
55°	1532	1562	1551
60°	1433	1447	1421
65°	1277	1310	1268
70°	1096	1100	1069
75°	868	866	833
80°	581	566	544
85°	315	312	293



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	3.7
10°-20°	195.7	10.6
20°-30°	293.2	15.8
30°-40°	347.5	18.8
40°-50°	348.1	18.8
50°-60°	295.5	16.0
60°-70°	199.2	10.8
70°-80°	87.5	4.7
80°-90°	14.2	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°	557.9	30.2
0°-40°	905.4	48.9
0°-60°	1549.0	83.7
0°-90°	1850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	729	727	729	727	744	69
15°	698	690	694	698	698	194
25°	624	627	638	646	645	288
35°	543	545	557	570	570	337
45°	437	445	452	464	453	338
55°	327	324	333	331	331	291
65°	201	198	206	198	199	200
75°	84	82	83	77	80	89
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	734.0	734.0	734.0	734.0	734.0
2.5°	740.4	734.8	729.6	735.6	739.3
5°	728.8	727.1	729.1	726.9	744.5
7.5°	713.8	720.4	724.2	721.8	722.8
10°	705.9	703.6	712.0	717.9	717.1
12.5°	697.4	700.8	701.2	707.6	708.2
15°	697.8	689.8	694.0	697.6	697.9
17.5°	670.7	679.4	682.4	690.6	680.4
20°	667.4	661.1	667.4	675.8	674.5
22.5°	647.0	639.9	653.6	661.1	660.6
25°	623.9	627.3	637.6	645.9	644.6
27.5°	603.6	607.6	622.2	633.7	626.3
30°	588.0	586.0	598.3	608.6	614.2
32.5°	560.0	567.2	581.6	591.8	586.4
35°	543.1	544.7	557.3	570.2	569.8
37.5°	513.4	520.9	538.6	542.2	538.9
40°	488.1	495.6	511.6	515.5	513.9
42.5°	469.4	470.7	484.5	488.9	481.8
45°	436.9	445.1	452.5	464.1	453.1
47.5°	409.2	413.0	429.0	432.1	426.3
50°	384.1	385.5	401.5	397.6	393.8
52.5°	352.6	358.2	367.2	366.4	361.9
55°	326.6	324.4	332.9	330.7	330.6
57.5°	295.4	299.2	306.2	302.6	296.8
60°	266.2	266.3	268.9	264.8	264.0
62.5°	233.7	234.9	235.4	230.4	238.5
65°	200.6	198.0	205.8	197.9	199.2
67.5°	170.2	171.5	170.8	165.9	167.8
70°	139.3	141.0	139.8	134.2	135.9
72.5°	111.1	109.0	110.3	103.3	106.5
75°	83.5	81.8	83.3	77.4	80.1
77.5°	56.9	58.2	57.2	54.1	55.9
80°	37.5	36.5	36.5	34.7	35.1
82.5°	21.9	20.9	20.6	20.0	20.9
85°	10.2	10.0	10.1	9.9	9.5
87.5°	3.7	3.8	3.8	3.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)