

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: P588933

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-82-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588933
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-82-84-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

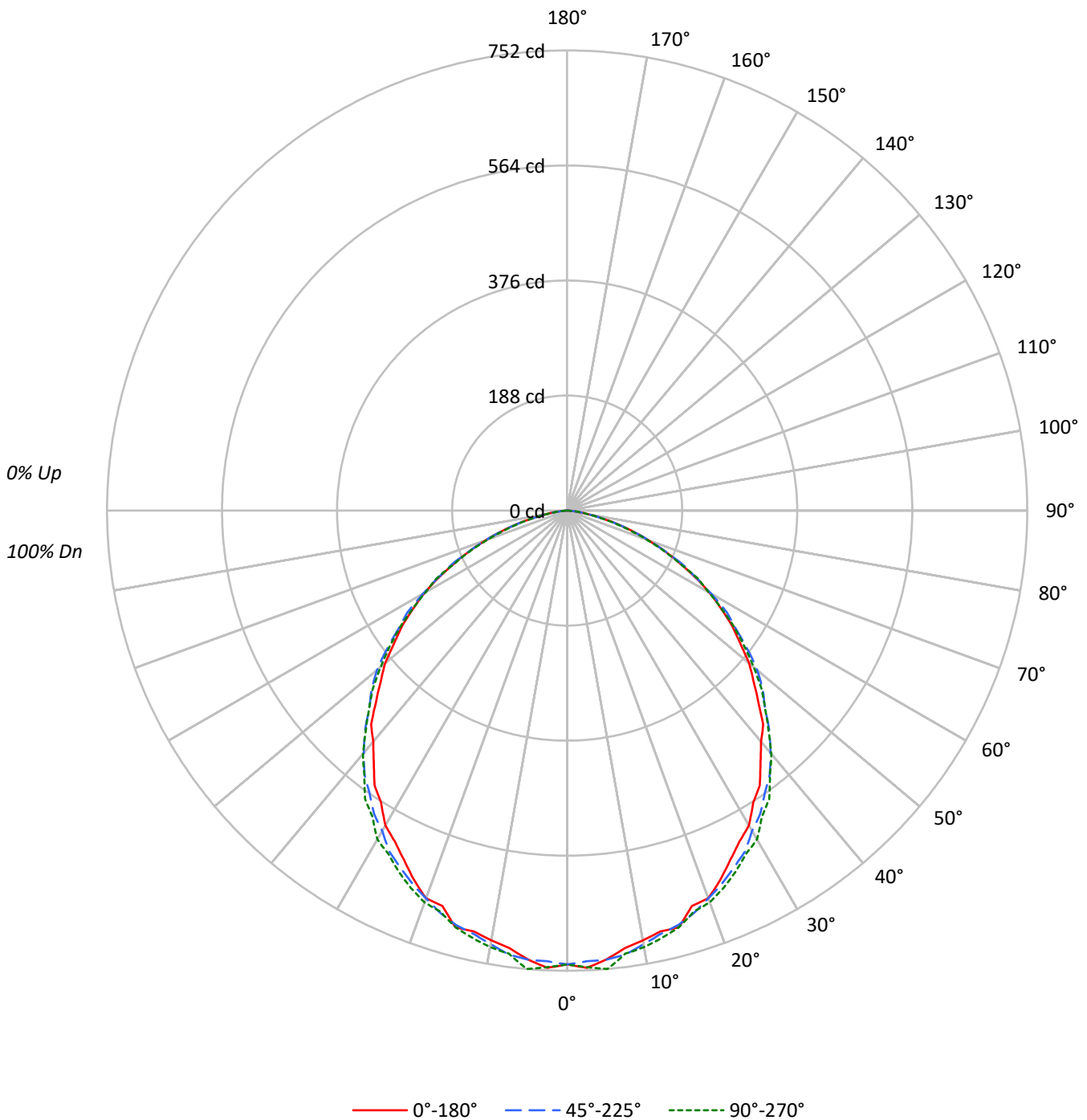
Lumens per Lamp: N/A
Luminaire Lumens: 1869.0 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1996	1996	1996
5°	1989	1990	2032
10°	1949	1966	1979
15°	1964	1953	1964
20°	1931	1931	1951
25°	1871	1912	1934
30°	1846	1878	1928
35°	1802	1849	1891
40°	1732	1816	1824
45°	1680	1740	1742
50°	1625	1698	1665
55°	1548	1578	1567
60°	1448	1462	1436
65°	1291	1324	1282
70°	1108	1111	1080
75°	878	875	841
80°	587	572	549
85°	318	315	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	3.7
10°-20°	197.7	10.6
20°-30°	296.2	15.8
30°-40°	351.0	18.8
40°-50°	351.7	18.8
50°-60°	298.5	16.0
60°-70°	201.3	10.8
70°-80°	88.4	4.7
80°-90°	14.4	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°	563.6	30.2
0°-40°	914.7	48.9
0°-60°	1564.9	83.7
0°-90°	1869.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1869.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	736	735	737	734	752	69
15°	705	697	701	705	705	196
25°	630	634	644	652	651	291
35°	549	550	563	576	576	341
45°	441	450	457	469	458	341
55°	330	328	336	334	334	293
65°	203	200	208	200	201	202
75°	84	83	84	78	81	90
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°	741.6	741.6	741.6	741.6	741.6
2.5°	748.0	742.3	737.1	743.2	746.9
5°	736.3	734.6	736.6	734.4	752.1
7.5°	721.2	727.8	731.6	729.2	730.3
10°	713.1	710.8	719.4	725.3	724.4
12.5°	704.5	708.0	708.4	714.9	715.4
15°	705.0	696.9	701.2	704.8	705.1
17.5°	677.6	686.4	689.4	697.7	687.4
20°	674.3	667.8	674.3	682.8	681.4
22.5°	653.7	646.5	660.3	667.8	667.4
25°	630.3	633.8	644.1	652.5	651.2
27.5°	609.8	613.8	628.6	640.2	632.7
30°	594.0	592.0	604.5	614.8	620.5
32.5°	565.8	573.1	587.6	597.9	592.4
35°	548.6	550.3	563.0	576.0	575.6
37.5°	518.7	526.2	544.1	547.8	544.4
40°	493.1	500.7	516.9	520.8	519.1
42.5°	474.2	475.6	489.5	494.0	486.8
45°	441.4	449.6	457.1	468.9	457.8
47.5°	413.4	417.3	433.4	436.5	430.7
50°	388.1	389.4	405.6	401.7	397.8
52.5°	356.2	361.8	370.9	370.2	365.7
55°	329.9	327.7	336.4	334.1	334.0
57.5°	298.4	302.3	309.4	305.7	299.9
60°	269.0	269.1	271.6	267.5	266.8
62.5°	236.1	237.3	237.8	232.8	241.0
65°	202.7	200.0	207.9	199.9	201.3
67.5°	172.0	173.3	172.5	167.6	169.5
70°	140.8	142.5	141.2	135.6	137.3
72.5°	112.2	110.1	111.5	104.4	107.6
75°	84.4	82.6	84.2	78.2	80.9
77.5°	57.4	58.8	57.8	54.7	56.5
80°	37.9	36.9	36.9	35.0	35.4
82.5°	22.1	21.1	20.8	20.2	21.1
85°	10.3	10.1	10.2	10.0	9.6
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)