

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: P588948

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588948
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-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

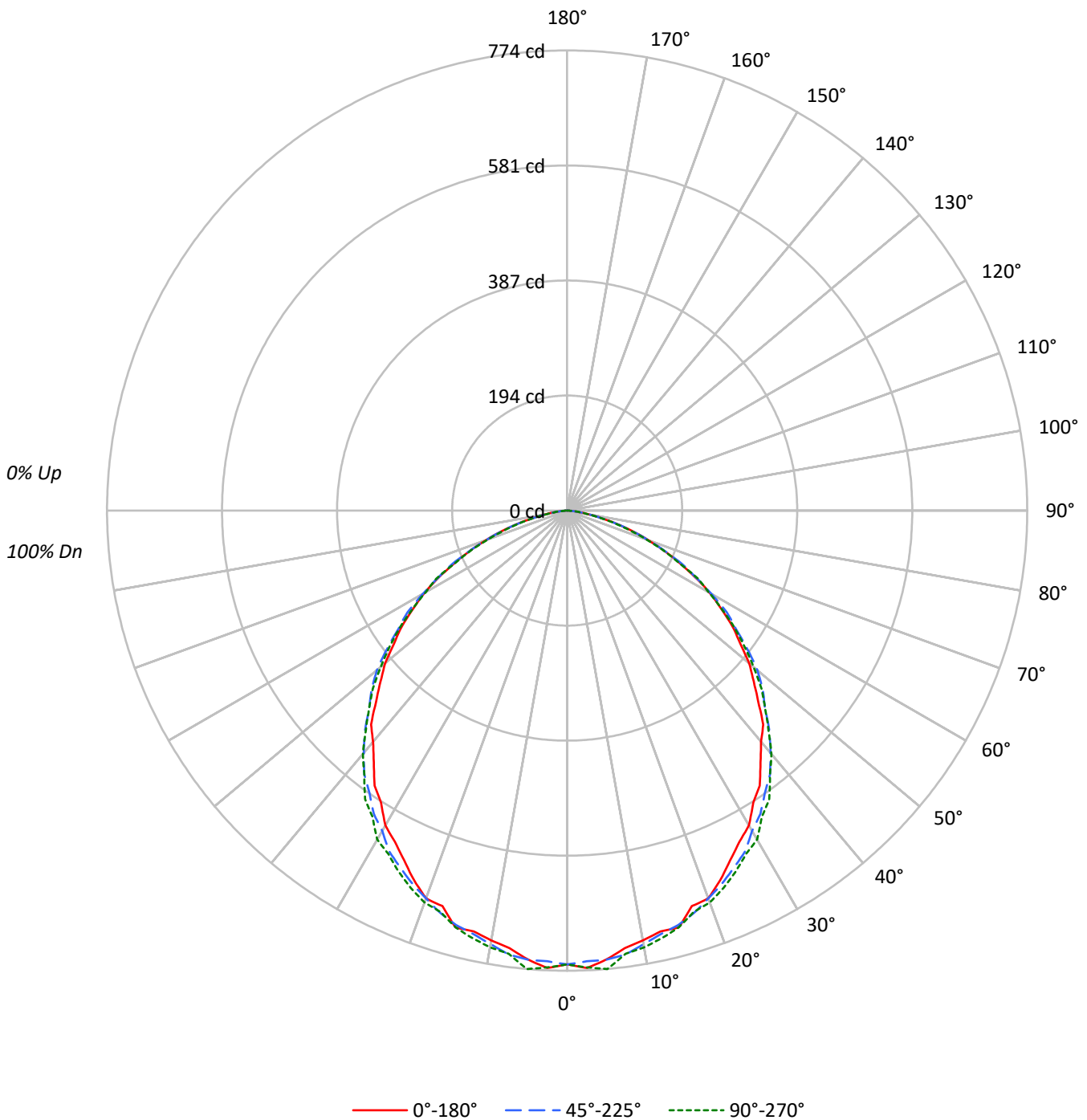
Lumens per Lamp: N/A
Luminaire Lumens: 1924.0 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	2054	2054	2054
5°	2048	2048	2091
10°	2006	2023	2038
15°	2022	2011	2022
20°	1988	1988	2009
25°	1927	1969	1990
30°	1900	1933	1985
35°	1855	1904	1947
40°	1783	1869	1877
45°	1729	1791	1793
50°	1672	1748	1714
55°	1594	1625	1613
60°	1490	1505	1478
65°	1329	1363	1319
70°	1140	1144	1112
75°	902	900	866
80°	604	587	566
85°	327	324	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	3.7
10°-20°	203.5	10.6
20°-30°	304.9	15.8
30°-40°	361.4	18.8
40°-50°	362.1	18.8
50°-60°	307.3	16.0
60°-70°	207.2	10.8
70°-80°	91.0	4.7
80°-90°	14.8	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°	580.2	30.2
0°-40°	941.6	48.9
0°-60°	1611.0	83.7
0°-90°	1924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1924.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	763	763	763	763	763	
5°	758	756	758	756	774	71
15°	726	717	722	726	726	202
25°	649	652	663	672	670	300
35°	565	566	580	593	593	351
45°	454	463	471	483	471	351
55°	340	337	346	344	344	302
65°	209	206	214	206	207	208
75°	87	85	87	80	83	93
85°	11	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°	763.4	763.4	763.4	763.4	763.4
2.5°	770.0	764.2	758.8	765.1	768.9
5°	758.0	756.2	758.3	756.0	774.2
7.5°	742.4	749.2	753.1	750.7	751.8
10°	734.1	731.8	740.5	746.6	745.8
12.5°	725.2	728.8	729.3	735.9	736.5
15°	725.7	717.4	721.8	725.5	725.8
17.5°	697.6	706.6	709.7	718.3	707.6
20°	694.1	687.5	694.1	702.9	701.5
22.5°	672.9	665.5	679.7	687.5	687.0
25°	648.9	652.4	663.1	671.7	670.3
27.5°	627.8	631.9	647.1	659.0	651.3
30°	611.5	609.4	622.2	632.9	638.8
32.5°	582.4	589.9	604.9	615.4	609.8
35°	564.8	566.5	579.6	593.0	592.6
37.5°	533.9	541.7	560.2	563.9	560.4
40°	507.6	515.4	532.1	536.1	534.4
42.5°	488.2	489.6	503.9	508.5	501.1
45°	454.4	462.9	470.6	482.7	471.2
47.5°	425.6	429.6	446.1	449.4	443.4
50°	399.5	400.9	417.5	413.5	409.5
52.5°	366.7	372.5	381.8	381.1	376.4
55°	339.7	337.4	346.3	343.9	343.8
57.5°	307.2	311.2	318.5	314.7	308.7
60°	276.9	277.0	279.6	275.4	274.6
62.5°	243.1	244.2	244.8	239.6	248.1
65°	208.7	205.9	214.0	205.8	207.2
67.5°	177.0	178.4	177.6	172.5	174.5
70°	144.9	146.7	145.4	139.6	141.3
72.5°	115.5	113.4	114.7	107.4	110.8
75°	86.8	85.1	86.6	80.5	83.3
77.5°	59.1	60.5	59.5	56.3	58.2
80°	39.0	37.9	37.9	36.1	36.5
82.5°	22.8	21.7	21.4	20.8	21.7
85°	10.6	10.3	10.5	10.3	9.9
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)