

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: P588932

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-81-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588932
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-81-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

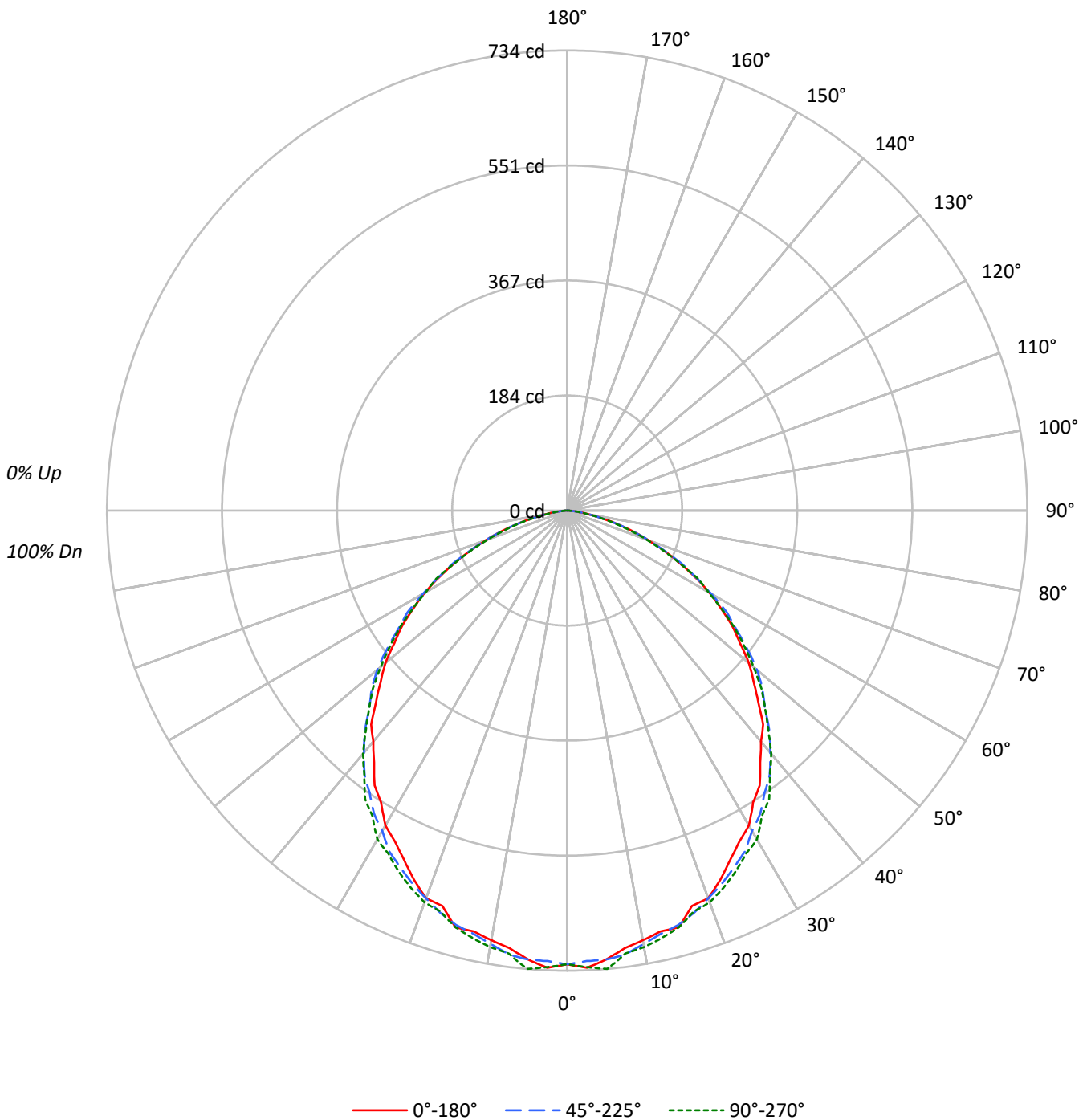
Lumens per Lamp: N/A
Luminaire Lumens: 1824.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (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°	1947	1947	1947
5°	1941	1942	1983
10°	1902	1918	1932
15°	1917	1906	1917
20°	1884	1884	1904
25°	1826	1866	1887
30°	1801	1833	1882
35°	1759	1805	1846
40°	1690	1772	1780
45°	1639	1698	1700
50°	1585	1657	1626
55°	1511	1540	1529
60°	1413	1427	1401
65°	1259	1292	1251
70°	1081	1084	1054
75°	856	854	821
80°	573	558	536
85°	312	309	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	3.7
10°-20°	192.9	10.6
20°-30°	289.1	15.8
30°-40°	342.6	18.8
40°-50°	343.2	18.8
50°-60°	291.4	16.0
60°-70°	196.4	10.8
70°-80°	86.3	4.7
80°-90°	14.0	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°	550.1	30.2
0°-40°	892.7	48.9
0°-60°	1527.2	83.7
0°-90°	1824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1824.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	719	717	719	717	734	68
15°	688	680	684	688	688	192
25°	615	618	629	637	636	284
35°	535	537	549	562	562	332
45°	431	439	446	458	447	333
55°	322	320	328	326	326	286
65°	198	195	203	195	196	197
75°	82	81	82	76	79	88
85°	10	10	10	10	9	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	723.7	723.7	723.7	723.7	723.7
2.5°	730.0	724.5	719.3	725.3	728.9
5°	718.6	716.9	718.9	716.7	734.0
7.5°	703.8	710.3	714.0	711.7	712.7
10°	696.0	693.7	702.0	707.8	707.0
12.5°	687.6	690.9	691.4	697.6	698.2
15°	688.0	680.1	684.3	687.8	688.1
17.5°	661.3	669.9	672.8	680.9	670.8
20°	658.0	651.8	658.0	666.3	665.0
22.5°	637.9	630.9	644.4	651.8	651.3
25°	615.1	618.5	628.6	636.8	635.5
27.5°	595.1	599.1	613.5	624.8	617.5
30°	579.7	577.8	589.9	600.0	605.6
32.5°	552.2	559.3	573.5	583.5	578.1
35°	535.4	537.0	549.4	562.2	561.8
37.5°	506.2	513.6	531.0	534.6	531.3
40°	481.2	488.6	504.4	508.2	506.6
42.5°	462.8	464.1	477.7	482.1	475.1
45°	430.8	438.8	446.1	457.6	446.8
47.5°	403.5	407.2	422.9	426.0	420.3
50°	378.7	380.0	395.8	392.0	388.3
52.5°	347.6	353.1	362.0	361.3	356.9
55°	322.0	319.9	328.3	326.0	325.9
57.5°	291.3	295.0	301.9	298.4	292.7
60°	262.5	262.6	265.1	261.1	260.3
62.5°	230.4	231.6	232.1	227.2	235.2
65°	197.8	195.2	202.9	195.1	196.4
67.5°	167.8	169.1	168.4	163.5	165.4
70°	137.4	139.0	137.8	132.3	134.0
72.5°	109.5	107.5	108.8	101.9	105.0
75°	82.3	80.6	82.1	76.3	79.0
77.5°	56.1	57.4	56.4	53.4	55.1
80°	37.0	36.0	36.0	34.2	34.6
82.5°	21.6	20.6	20.3	19.7	20.6
85°	10.1	9.8	10.0	9.7	9.3
87.5°	3.6	3.7	3.7	3.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)