

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: P588769

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-81-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588769
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-LD4-1HI-50-UNV-81-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

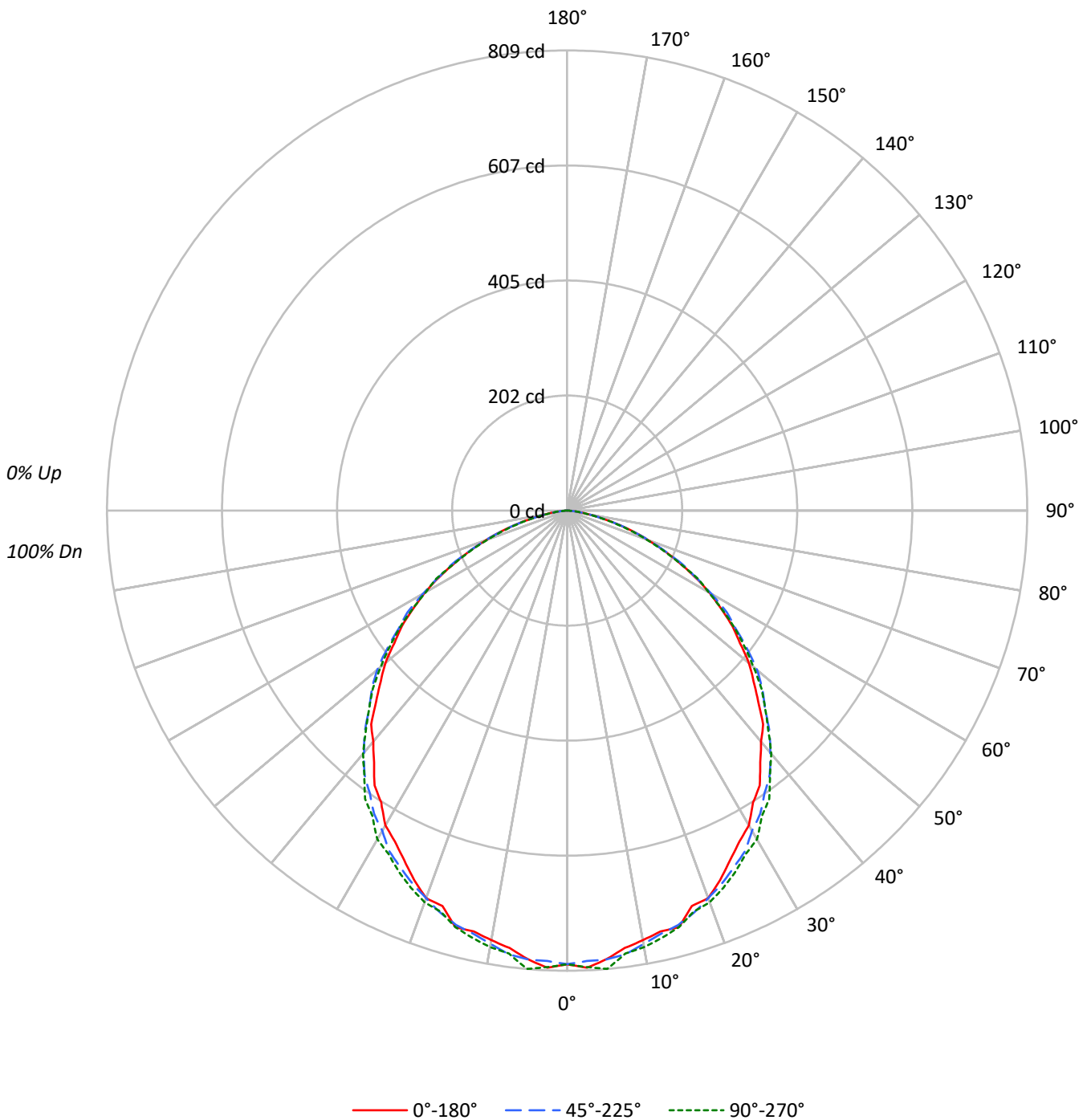
Lumens per Lamp: N/A
Luminaire Lumens: 2010.0 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	2146	2146	2146
5°	2139	2140	2185
10°	2096	2114	2129
15°	2112	2101	2113
20°	2076	2076	2099
25°	2013	2057	2079
30°	1985	2020	2074
35°	1938	1989	2034
40°	1863	1952	1961
45°	1807	1871	1874
50°	1747	1826	1791
55°	1665	1697	1685
60°	1556	1572	1544
65°	1388	1424	1378
70°	1191	1195	1162
75°	943	941	905
80°	632	614	590
85°	343	340	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	3.7
10°-20°	212.6	10.6
20°-30°	318.5	15.8
30°-40°	377.5	18.8
40°-50°	378.2	18.8
50°-60°	321.1	16.0
60°-70°	216.5	10.8
70°-80°	95.1	4.7
80°-90°	15.4	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°	606.2	30.2
0°-40°	983.7	48.9
0°-60°	1683.0	83.7
0°-90°	2010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2010.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	792	790	792	790	809	75
15°	758	749	754	758	758	211
25°	678	682	693	702	700	313
35°	590	592	606	620	619	366
45°	475	484	492	504	492	367
55°	355	352	362	359	359	316
65°	218	215	224	215	216	217
75°	91	89	90	84	87	97
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	797.5	797.5	797.5	797.5	797.5
2.5°	804.4	798.3	792.7	799.3	803.3
5°	791.9	790.0	792.2	789.8	808.8
7.5°	775.6	782.7	786.8	784.2	785.4
10°	766.9	764.5	773.6	780.0	779.1
12.5°	757.7	761.4	761.9	768.8	769.4
15°	758.2	749.4	754.1	758.0	758.3
17.5°	728.7	738.2	741.4	750.4	739.2
20°	725.1	718.2	725.1	734.3	732.9
22.5°	703.0	695.3	710.1	718.2	717.7
25°	677.9	681.6	692.7	701.8	700.3
27.5°	655.8	660.2	676.0	688.5	680.4
30°	638.8	636.7	650.1	661.2	667.4
32.5°	608.5	616.3	631.9	643.0	637.1
35°	590.0	591.8	605.5	619.5	619.1
37.5°	557.8	565.9	585.2	589.1	585.5
40°	530.3	538.4	555.8	560.1	558.3
42.5°	510.0	511.5	526.4	531.2	523.5
45°	474.7	483.6	491.6	504.3	492.3
47.5°	444.6	448.8	466.1	469.4	463.2
50°	417.3	418.8	436.2	432.0	427.8
52.5°	383.1	389.1	398.9	398.1	393.2
55°	354.8	352.5	361.7	359.3	359.2
57.5°	321.0	325.1	332.7	328.8	322.5
60°	289.2	289.4	292.1	287.7	286.9
62.5°	253.9	255.2	255.8	250.3	259.2
65°	218.0	215.1	223.6	215.0	216.4
67.5°	184.9	186.4	185.6	180.2	182.3
70°	151.4	153.2	151.9	145.8	147.7
72.5°	120.7	118.4	119.9	112.2	115.7
75°	90.7	88.9	90.5	84.1	87.0
77.5°	61.8	63.2	62.2	58.8	60.8
80°	40.8	39.6	39.6	37.7	38.1
82.5°	23.8	22.7	22.3	21.7	22.7
85°	11.1	10.8	11.0	10.7	10.3
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)