

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: P589536

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-81-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589536
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-LD4-3STD-50-UNV-81-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

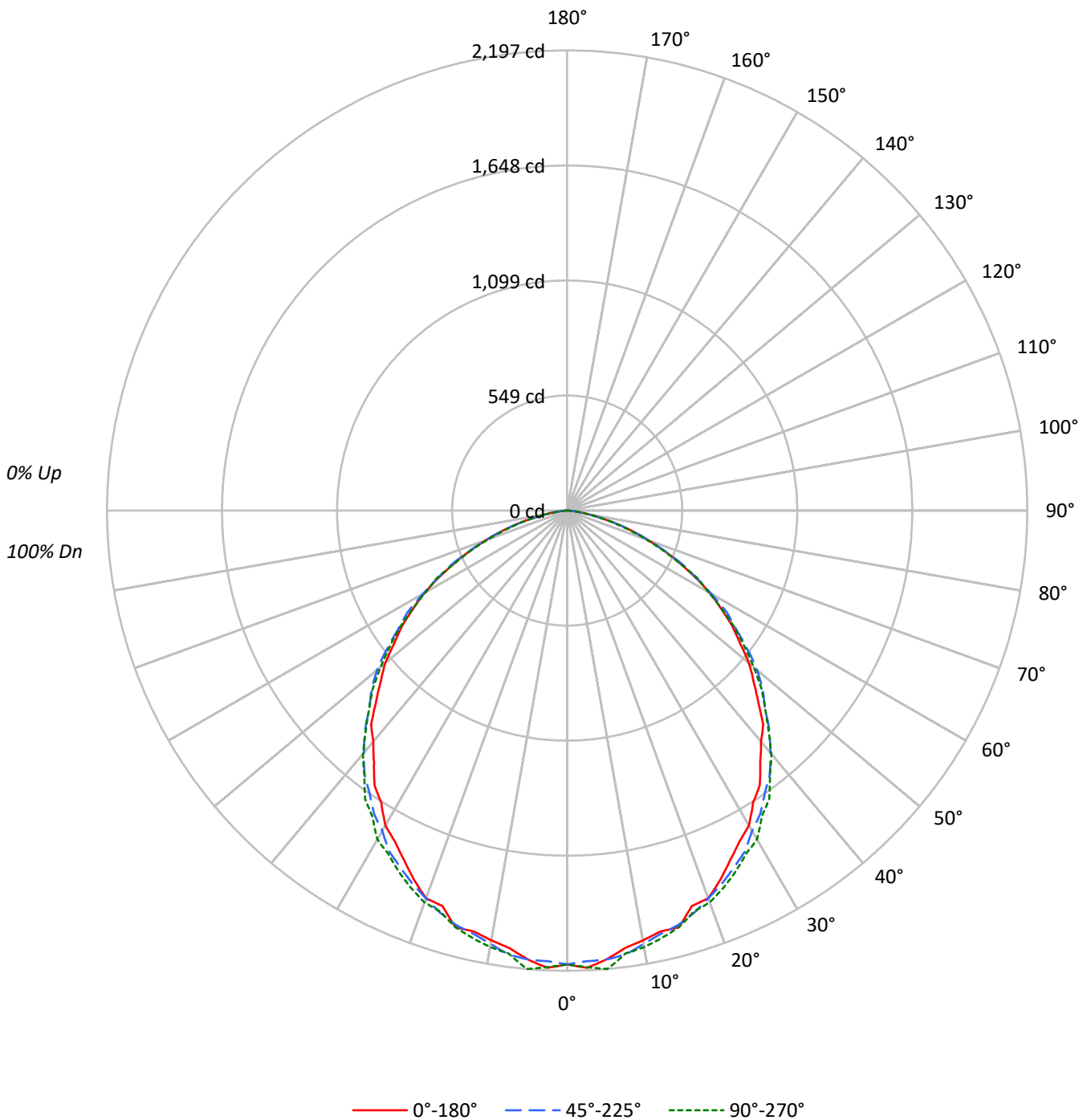
Lumens per Lamp: N/A
Luminaire Lumens: 5460.0 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	5830	5830	5830
5°	5810	5813	5935
10°	5693	5742	5783
15°	5738	5707	5738
20°	5641	5641	5701
25°	5467	5587	5648
30°	5392	5487	5633
35°	5265	5403	5524
40°	5060	5304	5328
45°	4907	5082	5089
50°	4746	4960	4865
55°	4522	4610	4577
60°	4229	4271	4194
65°	3771	3867	3744
70°	3235	3246	3156
75°	2562	2557	2458
80°	1717	1669	1604
85°	932	923	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.8	3.7
10°-20°	577.5	10.6
20°-30°	865.3	15.8
30°-40°	1025.5	18.8
40°-50°	1027.4	18.8
50°-60°	872.1	16.0
60°-70°	588.0	10.8
70°-80°	258.4	4.7
80°-90°	42.0	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°	1646.6	30.2
0°-40°	2672.1	48.9
0°-60°	4571.7	83.7
0°-90°	5460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2166	2166	2166	2166	2166	
5°	2151	2146	2152	2145	2197	203
15°	2060	2036	2048	2059	2060	574
25°	1841	1851	1882	1906	1902	851
35°	1603	1608	1645	1683	1682	995
45°	1290	1314	1335	1370	1337	997
55°	964	958	983	976	976	857
65°	592	584	607	584	588	589
75°	246	241	246	228	236	264
85°	30	29	30	29	28	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2166.4	2166.4	2166.4	2166.4	2166.4
2.5°	2185.1	2168.6	2153.2	2171.1	2182.1
5°	2151.0	2146.0	2151.8	2145.4	2197.2
7.5°	2106.8	2126.1	2137.3	2130.3	2133.4
10°	2083.3	2076.6	2101.5	2118.8	2116.3
12.5°	2058.1	2068.2	2069.6	2088.3	2090.0
15°	2059.5	2035.8	2048.4	2059.0	2059.8
17.5°	1979.5	2005.3	2013.9	2038.3	2008.1
20°	1969.8	1951.0	1969.8	1994.6	1990.7
22.5°	1909.6	1888.6	1928.9	1951.0	1949.6
25°	1841.4	1851.4	1881.6	1906.3	1902.3
27.5°	1781.5	1793.3	1836.3	1870.2	1848.4
30°	1735.3	1729.5	1765.8	1796.0	1812.8
32.5°	1652.8	1674.1	1716.6	1746.5	1730.6
35°	1602.8	1607.5	1644.7	1682.8	1681.6
37.5°	1515.2	1537.3	1589.6	1600.2	1590.5
40°	1440.5	1462.6	1509.9	1521.4	1516.6
42.5°	1385.4	1389.3	1429.9	1443.0	1422.1
45°	1289.5	1313.5	1335.4	1369.8	1337.3
47.5°	1207.8	1219.0	1266.0	1275.2	1258.2
50°	1133.7	1137.6	1184.9	1173.4	1162.2
52.5°	1040.5	1057.0	1083.6	1081.4	1068.2
55°	963.9	957.5	982.6	975.9	975.6
57.5°	871.9	883.1	903.8	893.1	876.1
60°	785.7	786.0	793.6	781.5	779.3
62.5°	689.8	693.1	694.8	680.0	704.0
65°	592.2	584.3	607.3	584.0	588.0
67.5°	502.4	506.3	504.0	489.5	495.1
70°	411.2	416.2	412.6	396.1	401.1
72.5°	327.8	321.7	325.6	304.9	314.4
75°	246.4	241.4	245.9	228.5	236.4
77.5°	167.8	171.7	168.9	159.7	165.0
80°	110.8	107.7	107.7	102.4	103.5
82.5°	64.6	61.5	60.7	59.0	61.5
85°	30.2	29.4	29.9	29.1	28.0
87.5°	10.9	11.2	11.2	10.6	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)