

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: P589189

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-82-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589189
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-LD4-2STD-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

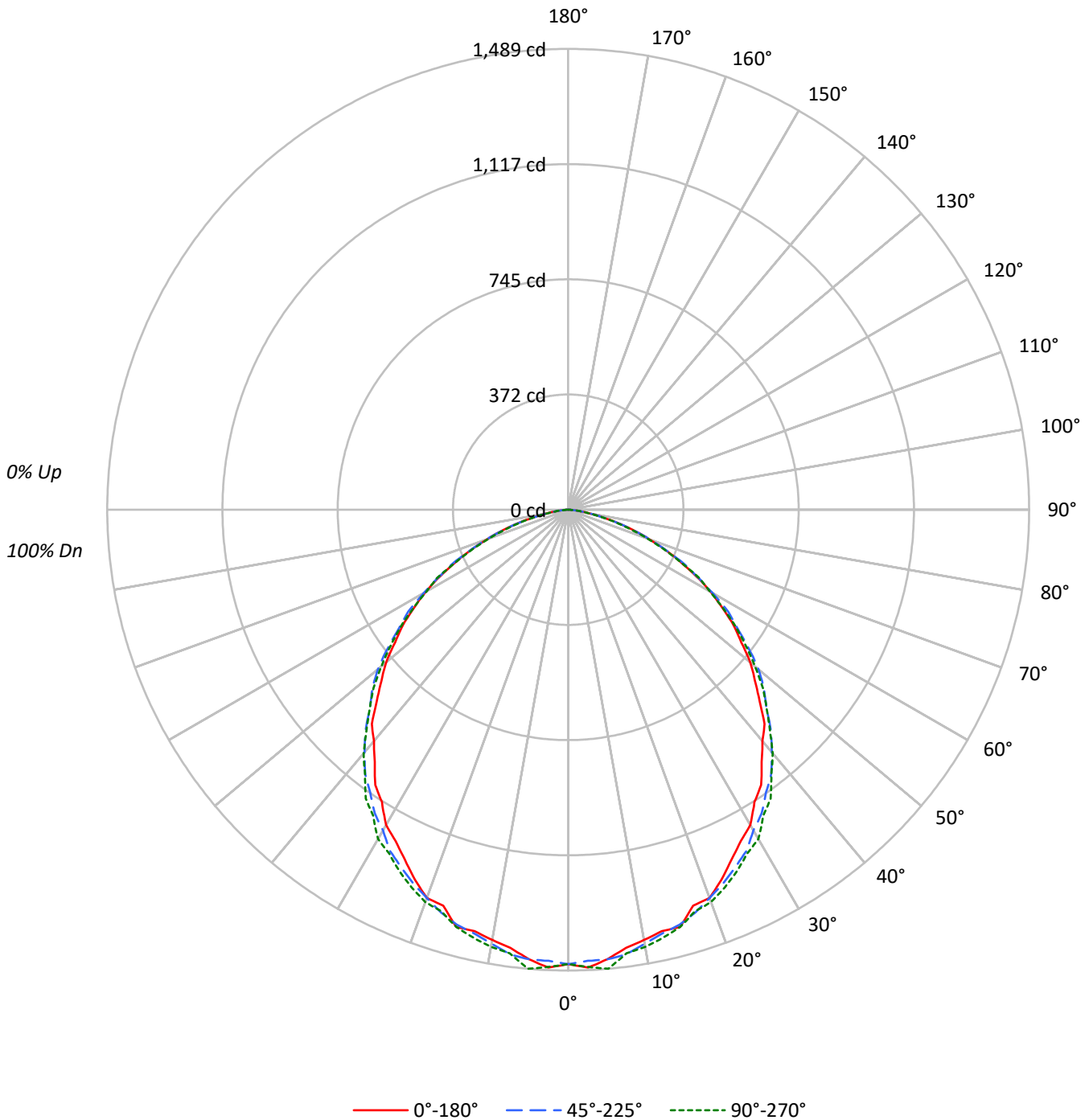
Lumens per Lamp: N/A
Luminaire Lumens: 3700.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3951	3951	3951
5°	3937	3939	4022
10°	3858	3891	3919
15°	3888	3867	3889
20°	3822	3822	3863
25°	3705	3786	3828
30°	3654	3718	3817
35°	3568	3662	3744
40°	3429	3594	3610
45°	3325	3444	3449
50°	3216	3361	3297
55°	3065	3124	3102
60°	2865	2894	2842
65°	2555	2620	2537
70°	2192	2200	2138
75°	1736	1732	1666
80°	1164	1131	1086
85°	633	627	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	3.7
10°-20°	391.4	10.6
20°-30°	586.4	15.8
30°-40°	695.0	18.8
40°-50°	696.2	18.8
50°-60°	591.0	16.0
60°-70°	398.4	10.8
70°-80°	175.1	4.7
80°-90°	28.5	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°	1115.8	30.2
0°-40°	1810.8	48.9
0°-60°	3098.0	83.7
0°-90°	3700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3700.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1458	1454	1458	1454	1489	137
15°	1396	1380	1388	1395	1396	389
25°	1248	1255	1275	1292	1289	577
35°	1086	1089	1115	1140	1140	674
45°	874	890	905	928	906	676
55°	653	649	666	661	661	581
65°	401	396	412	396	398	399
75°	167	164	167	155	160	179
85°	20	20	20	20	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1468.1	1468.1	1468.1	1468.1	1468.1
2.5°	1480.8	1469.6	1459.2	1471.3	1478.7
5°	1457.6	1454.2	1458.2	1453.9	1488.9
7.5°	1427.7	1440.8	1448.4	1443.6	1445.7
10°	1411.8	1407.2	1424.1	1435.8	1434.1
12.5°	1394.7	1401.5	1402.5	1415.2	1416.3
15°	1395.7	1379.5	1388.1	1395.3	1395.8
17.5°	1341.4	1358.9	1364.8	1381.3	1360.8
20°	1334.8	1322.1	1334.8	1351.7	1349.0
22.5°	1294.1	1279.8	1307.1	1322.1	1321.2
25°	1247.8	1254.6	1275.1	1291.8	1289.1
27.5°	1207.2	1215.2	1244.4	1267.3	1252.5
30°	1176.0	1172.0	1196.6	1217.1	1228.5
32.5°	1120.1	1134.5	1163.3	1183.6	1172.7
35°	1086.1	1089.3	1114.6	1140.3	1139.6
37.5°	1026.8	1041.8	1077.2	1084.4	1077.8
40°	976.2	991.2	1023.2	1031.0	1027.7
42.5°	938.8	941.5	969.0	977.9	963.7
45°	873.8	890.1	904.9	928.2	906.2
47.5°	818.5	826.1	857.9	864.2	852.6
50°	768.2	770.9	802.9	795.2	787.6
52.5°	705.1	716.3	734.3	732.8	723.9
55°	653.2	648.8	665.9	661.3	661.2
57.5°	590.8	598.4	612.4	605.2	593.7
60°	532.4	532.6	537.8	529.6	528.1
62.5°	467.4	469.7	470.8	460.8	477.1
65°	401.3	396.0	411.5	395.8	398.4
67.5°	340.4	343.1	341.6	331.7	335.5
70°	278.6	282.1	279.6	268.4	271.8
72.5°	222.2	218.0	220.6	206.6	213.1
75°	167.0	163.6	166.6	154.9	160.2
77.5°	113.7	116.4	114.5	108.2	111.8
80°	75.1	73.0	73.0	69.4	70.1
82.5°	43.8	41.7	41.1	40.0	41.7
85°	20.5	19.9	20.3	19.7	19.0
87.5°	7.4	7.6	7.6	7.2	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)