

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: P589382

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589382
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-LD4-3LO-35-UNV-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

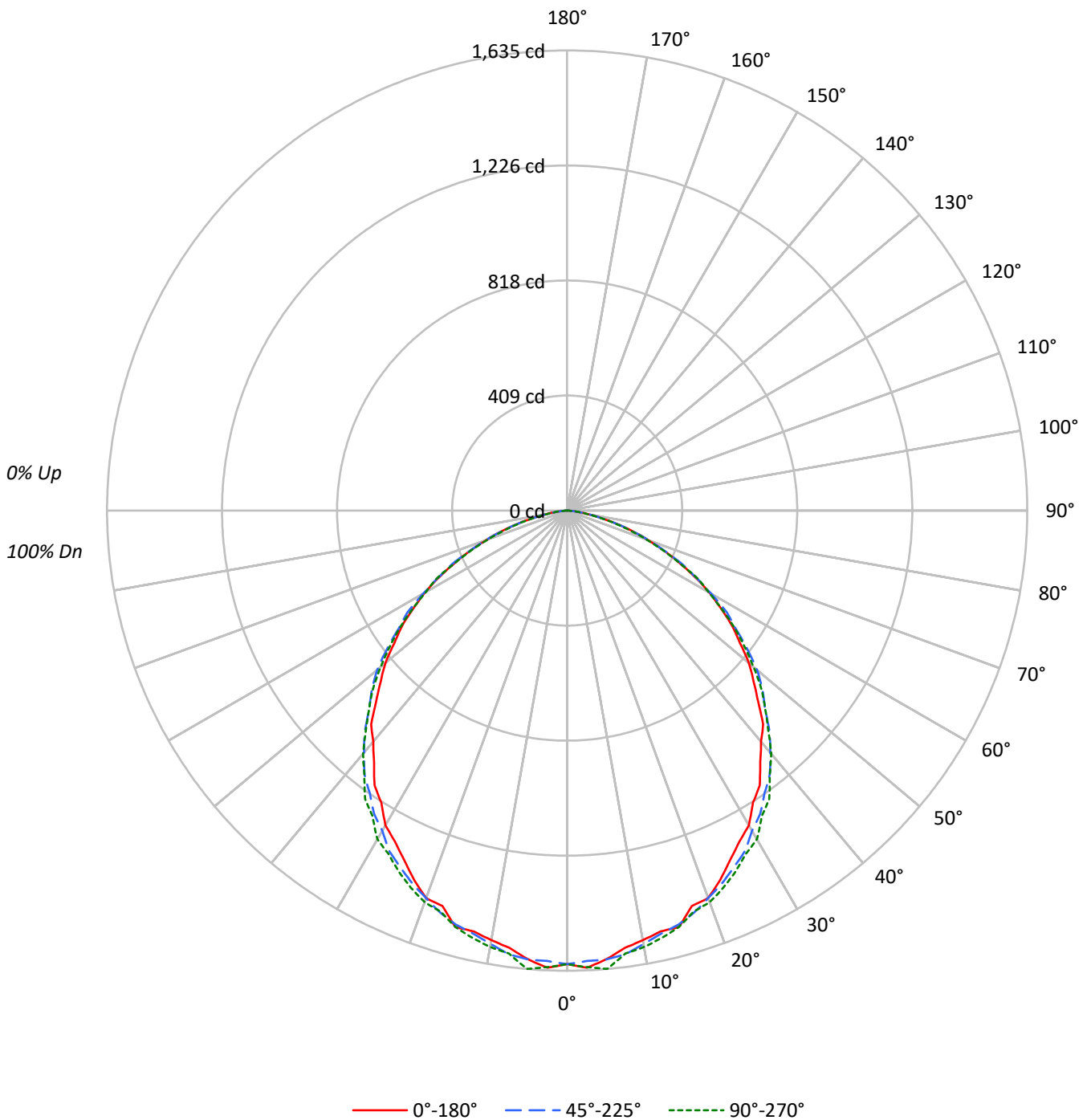
Lumens per Lamp: N/A
Luminaire Lumens: 4062.0 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	4337	4337	4337
5°	4323	4324	4415
10°	4235	4272	4302
15°	4269	4245	4269
20°	4196	4196	4241
25°	4067	4157	4202
30°	4011	4082	4191
35°	3917	4020	4110
40°	3765	3946	3964
45°	3651	3781	3786
50°	3531	3690	3620
55°	3364	3430	3405
60°	3146	3178	3120
65°	2805	2877	2785
70°	2407	2415	2348
75°	1906	1902	1828
80°	1277	1241	1193
85°	695	689	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	3.7
10°-20°	429.7	10.6
20°-30°	643.7	15.8
30°-40°	762.9	18.8
40°-50°	764.4	18.8
50°-60°	648.8	16.0
60°-70°	437.4	10.8
70°-80°	192.2	4.7
80°-90°	31.2	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°	1225.0	30.2
0°-40°	1988.0	48.9
0°-60°	3401.1	83.7
0°-90°	4062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1600	1596	1601	1596	1635	151
15°	1532	1514	1524	1532	1532	427
25°	1370	1377	1400	1418	1415	633
35°	1192	1196	1224	1252	1251	740
45°	959	977	993	1019	995	742
55°	717	712	731	726	726	638
65°	440	435	452	434	437	438
75°	183	180	183	170	176	196
85°	22	22	22	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1611.7	1611.7	1611.7	1611.7	1611.7
2.5°	1625.6	1613.4	1601.9	1615.2	1623.4
5°	1600.3	1596.5	1600.9	1596.1	1634.6
7.5°	1567.4	1581.7	1590.1	1584.9	1587.1
10°	1549.9	1544.9	1563.4	1576.3	1574.4
12.5°	1531.2	1538.7	1539.7	1553.6	1554.9
15°	1532.2	1514.5	1523.9	1531.8	1532.4
17.5°	1472.7	1491.8	1498.3	1516.4	1493.9
20°	1465.4	1451.5	1465.4	1483.9	1481.0
22.5°	1420.7	1405.1	1435.0	1451.5	1450.4
25°	1369.9	1377.4	1399.9	1418.2	1415.3
27.5°	1325.4	1334.1	1366.1	1391.3	1375.1
30°	1291.0	1286.7	1313.7	1336.2	1348.7
32.5°	1229.6	1245.5	1277.1	1299.3	1287.5
35°	1192.4	1195.9	1223.6	1251.9	1251.1
37.5°	1127.3	1143.7	1182.6	1190.5	1183.2
40°	1071.7	1088.1	1123.3	1131.8	1128.3
42.5°	1030.7	1033.6	1063.8	1073.6	1058.0
45°	959.3	977.2	993.4	1019.0	994.9
47.5°	898.6	906.9	941.8	948.7	936.0
50°	843.4	846.3	881.5	873.0	864.6
52.5°	774.1	786.4	806.2	804.5	794.7
55°	717.1	712.3	731.0	726.0	725.8
57.5°	648.6	657.0	672.4	664.4	651.8
60°	584.5	584.7	590.4	581.4	579.8
62.5°	513.2	515.7	516.9	505.9	523.8
65°	440.5	434.7	451.8	434.5	437.4
67.5°	373.7	376.7	375.0	364.2	368.3
70°	305.9	309.6	306.9	294.7	298.4
72.5°	243.9	239.3	242.2	226.8	233.9
75°	183.3	179.6	182.9	170.0	175.8
77.5°	124.9	127.8	125.7	118.8	122.8
80°	82.4	80.1	80.1	76.2	77.0
82.5°	48.1	45.8	45.2	43.9	45.8
85°	22.5	21.9	22.3	21.6	20.8
87.5°	8.1	8.3	8.3	7.9	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)