

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: P589409

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-81-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589409
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

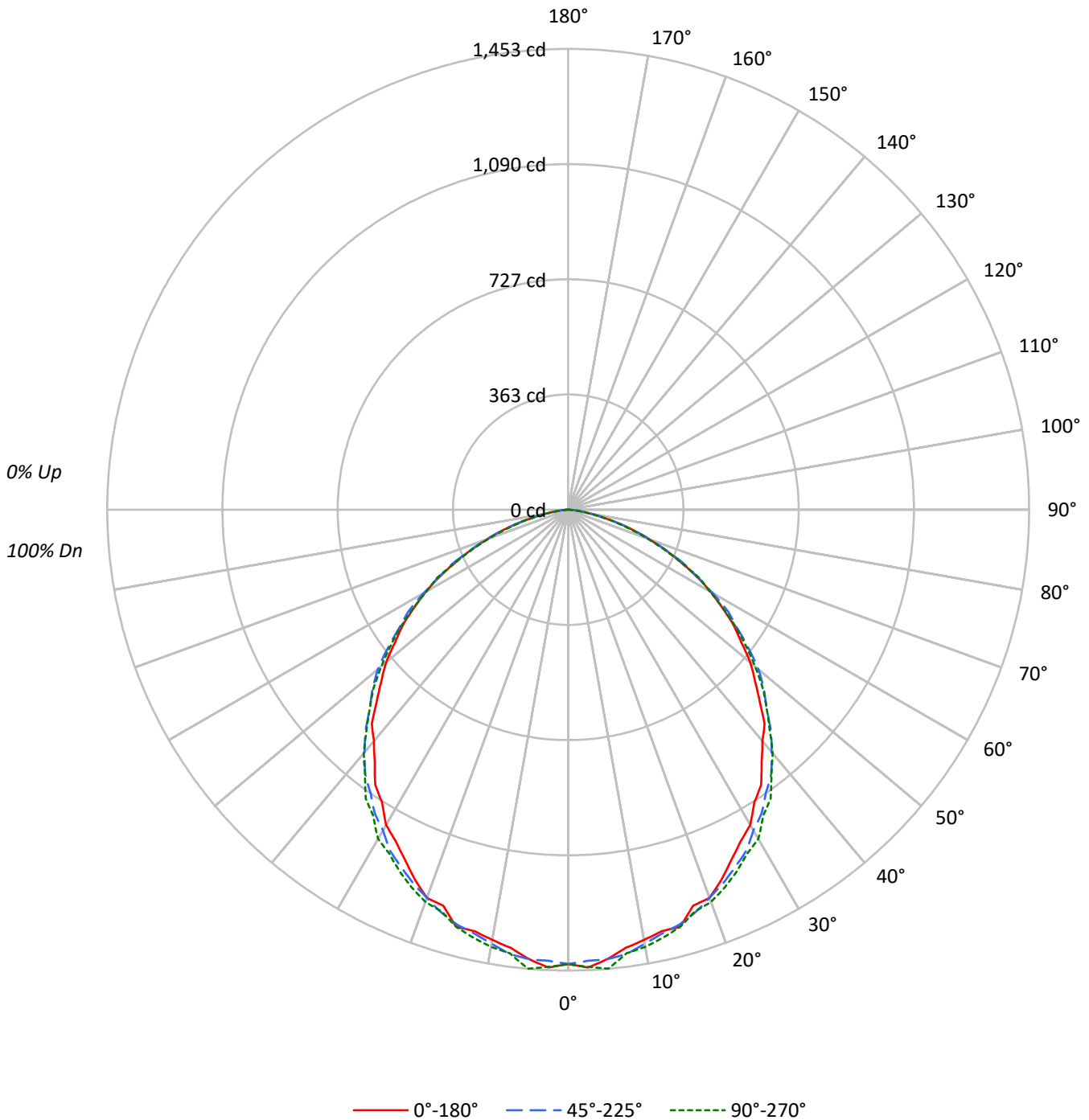
Lumens per Lamp: N/A
Luminaire Lumens: 3610.0 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3855	3855	3855
5°	3842	3843	3924
10°	3764	3797	3824
15°	3794	3773	3794
20°	3729	3729	3769
25°	3615	3694	3735
30°	3565	3628	3724
35°	3481	3572	3653
40°	3346	3507	3522
45°	3245	3360	3365
50°	3138	3280	3217
55°	2990	3048	3027
60°	2796	2824	2773
65°	2493	2557	2475
70°	2139	2146	2087
75°	1694	1691	1625
80°	1134	1103	1060
85°	618	611	571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.7	3.7
10°-20°	381.9	10.6
20°-30°	572.1	15.8
30°-40°	678.0	18.8
40°-50°	679.3	18.8
50°-60°	576.6	16.0
60°-70°	388.8	10.8
70°-80°	170.8	4.7
80°-90°	27.8	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°	1088.7	30.2
0°-40°	1766.7	48.9
0°-60°	3022.7	83.7
0°-90°	3610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3610.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1422	1419	1423	1418	1453	134
15°	1362	1346	1354	1361	1362	379
25°	1218	1224	1244	1260	1258	563
35°	1060	1063	1087	1113	1112	658
45°	853	868	883	906	884	660
55°	637	633	650	645	645	567
65°	392	386	402	386	389	389
75°	163	160	163	151	156	175
85°	20	19	20	19	18	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1432.4	1432.4	1432.4	1432.4	1432.4
2.5°	1444.7	1433.8	1423.7	1435.5	1442.7
5°	1422.2	1418.9	1422.7	1418.5	1452.7
7.5°	1393.0	1405.7	1413.1	1408.5	1410.5
10°	1377.4	1373.0	1389.5	1400.9	1399.3
12.5°	1360.8	1367.4	1368.4	1380.8	1381.9
15°	1361.7	1346.0	1354.3	1361.3	1361.9
17.5°	1308.8	1325.8	1331.6	1347.7	1327.7
20°	1302.3	1290.0	1302.3	1318.8	1316.2
22.5°	1262.6	1248.7	1275.3	1290.0	1289.0
25°	1217.5	1224.1	1244.1	1260.4	1257.8
27.5°	1177.9	1185.6	1214.1	1236.5	1222.1
30°	1147.4	1143.5	1167.5	1187.5	1198.6
32.5°	1092.8	1106.9	1135.0	1154.8	1144.2
35°	1059.7	1062.8	1087.4	1112.6	1111.9
37.5°	1001.8	1016.4	1051.0	1058.0	1051.6
40°	952.4	967.0	998.3	1005.9	1002.7
42.5°	916.0	918.6	945.4	954.1	940.2
45°	852.6	868.5	882.9	905.6	884.2
47.5°	798.6	806.0	837.0	843.1	831.9
50°	749.6	752.1	783.4	775.8	768.4
52.5°	688.0	698.9	716.5	715.0	706.3
55°	637.3	633.0	649.7	645.3	645.1
57.5°	576.5	583.9	597.5	590.5	579.2
60°	519.5	519.7	524.7	516.7	515.2
62.5°	456.1	458.3	459.4	449.6	465.5
65°	391.5	386.3	401.5	386.2	388.7
67.5°	332.2	334.7	333.3	323.6	327.3
70°	271.9	275.2	272.8	261.9	265.2
72.5°	216.7	212.7	215.3	201.6	207.9
75°	162.9	159.6	162.6	151.1	156.3
77.5°	111.0	113.6	111.7	105.6	109.1
80°	73.2	71.2	71.2	67.7	68.4
82.5°	42.7	40.7	40.1	39.0	40.7
85°	20.0	19.4	19.8	19.2	18.5
87.5°	7.2	7.4	7.4	7.0	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)