

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: P589416

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589416
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-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

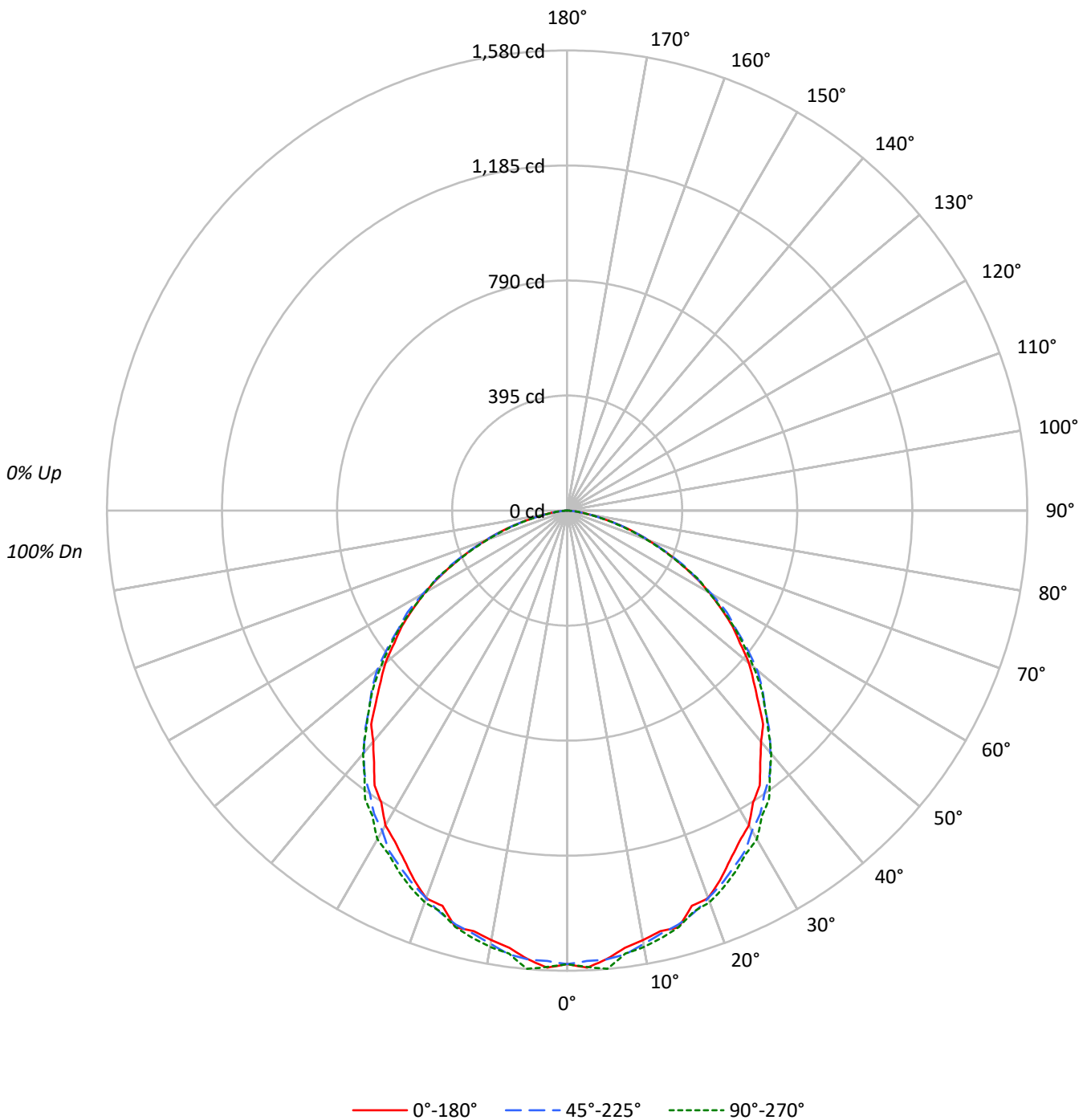
Lumens per Lamp: N/A
Luminaire Lumens: 3925.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589416

CATALOG NUMBER: FMR-24-2-LD4-3LO-40-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589416

CATALOG NUMBER: FMR-24-2-LD4-3LO-40-UNV-82-87-EDD

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°	4191	4191	4191
5°	4177	4179	4267
10°	4092	4128	4157
15°	4125	4102	4125
20°	4055	4055	4098
25°	3930	4016	4060
30°	3876	3944	4049
35°	3785	3884	3971
40°	3638	3813	3830
45°	3528	3653	3658
50°	3412	3566	3498
55°	3251	3314	3291
60°	3040	3070	3015
65°	2711	2779	2691
70°	2326	2334	2268
75°	1841	1837	1766
80°	1234	1199	1153
85°	670	664	621



TEST NUMBER: P589416

CATALOG NUMBER: FMR-24-2-LD4-3LO-40-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.5	3.7
10°-20°	415.2	10.6
20°-30°	622.0	15.8
30°-40°	737.2	18.8
40°-50°	738.6	18.8
50°-60°	626.9	16.0
60°-70°	422.7	10.8
70°-80°	185.7	4.7
80°-90°	30.2	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°	1183.7	30.2
0°-40°	1920.9	48.9
0°-60°	3286.4	83.7
0°-90°	3925.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3925.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1546	1543	1547	1542	1580	146
15°	1480	1463	1472	1480	1481	412
25°	1324	1331	1353	1370	1368	612
35°	1152	1156	1182	1210	1209	715
45°	927	944	960	985	961	717
55°	693	688	706	702	701	616
65°	426	420	436	420	423	423
75°	177	174	177	164	170	190
85°	22	21	22	21	20	31
90°	0	0	0	0	0	



TEST NUMBER: P589416

CATALOG NUMBER: FMR-24-2-LD4-3LO-40-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1557.3	1557.3	1557.3	1557.3	1557.3
2.5°	1570.8	1558.9	1547.9	1560.8	1568.6
5°	1546.3	1542.7	1546.9	1542.3	1579.5
7.5°	1514.5	1528.4	1536.4	1531.4	1533.6
10°	1497.6	1492.8	1510.7	1523.2	1521.3
12.5°	1479.5	1486.8	1487.8	1501.2	1502.4
15°	1480.5	1463.4	1472.5	1480.1	1480.7
17.5°	1423.0	1441.5	1447.8	1465.2	1443.5
20°	1416.0	1402.5	1416.0	1433.9	1431.1
22.5°	1372.8	1357.7	1386.6	1402.5	1401.5
25°	1323.7	1330.9	1352.6	1370.3	1367.5
27.5°	1280.7	1289.1	1320.1	1344.4	1328.7
30°	1247.5	1243.3	1269.4	1291.1	1303.2
32.5°	1188.2	1203.4	1234.0	1255.5	1244.1
35°	1152.2	1155.6	1182.3	1209.7	1208.9
37.5°	1089.2	1105.1	1142.7	1150.4	1143.3
40°	1035.5	1051.4	1085.4	1093.7	1090.2
42.5°	995.9	998.7	1027.9	1037.4	1022.3
45°	927.0	944.3	959.9	984.7	961.3
47.5°	868.3	876.3	910.1	916.7	904.4
50°	815.0	817.8	851.8	843.5	835.5
52.5°	748.0	759.9	779.0	777.4	767.9
55°	692.9	688.3	706.4	701.6	701.4
57.5°	626.8	634.8	649.7	642.0	629.8
60°	564.8	565.0	570.5	561.8	560.2
62.5°	495.9	498.3	499.5	488.8	506.1
65°	425.7	420.0	436.5	419.8	422.7
67.5°	361.1	363.9	362.3	351.9	355.9
70°	295.6	299.2	296.6	284.7	288.3
72.5°	235.7	231.2	234.1	219.2	226.0
75°	177.1	173.5	176.7	164.3	169.9
77.5°	120.6	123.5	121.5	114.8	118.6
80°	79.6	77.4	77.4	73.6	74.4
82.5°	46.4	44.2	43.6	42.4	44.2
85°	21.7	21.1	21.5	20.9	20.1
87.5°	7.8	8.0	8.0	7.6	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)