

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: P589404

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-80-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589404
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-80-97-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

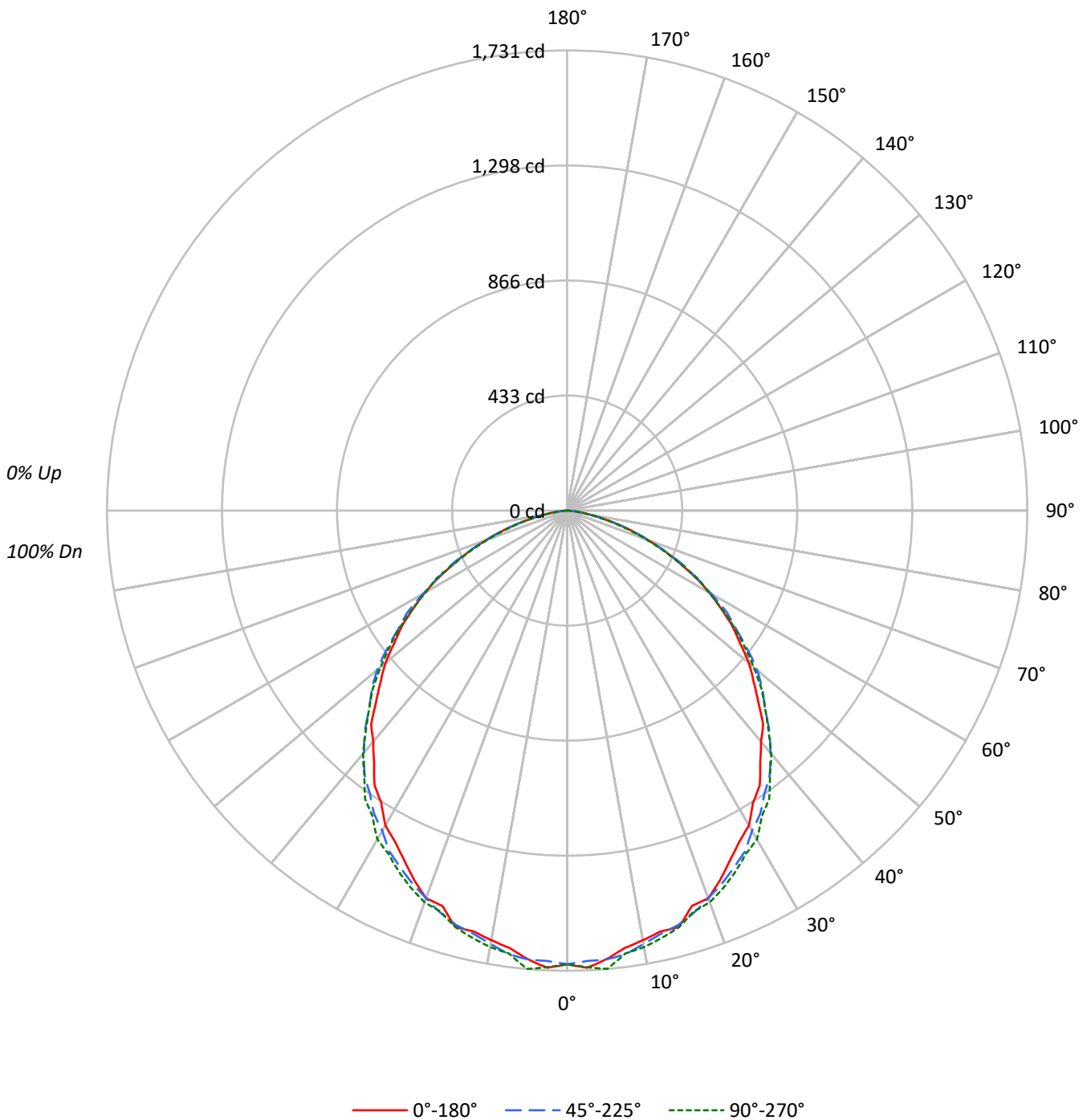
Lumens per Lamp: N/A
Luminaire Lumens: 4301.0 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
Input Voltage (V): NR
Input Current (A_{in}): 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°	4592	4592	4592
5°	4577	4579	4675
10°	4484	4523	4555
15°	4520	4495	4520
20°	4443	4443	4491
25°	4307	4401	4449
30°	4248	4322	4437
35°	4147	4256	4352
40°	3986	4178	4197
45°	3866	4003	4009
50°	3738	3908	3833
55°	3562	3632	3605
60°	3331	3364	3304
65°	2970	3046	2949
70°	2548	2557	2486
75°	2018	2014	1936
80°	1353	1314	1263
85°	735	729	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.5	3.7
10°-20°	454.9	10.6
20°-30°	681.6	15.8
30°-40°	807.8	18.8
40°-50°	809.3	18.8
50°-60°	687.0	16.0
60°-70°	463.2	10.8
70°-80°	203.5	4.7
80°-90°	33.1	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°	1297.1	30.2
0°-40°	2104.9	48.9
0°-60°	3601.2	83.7
0°-90°	4301.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4301.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1694	1690	1695	1690	1731	160
15°	1622	1604	1614	1622	1623	452
25°	1450	1458	1482	1502	1498	671
35°	1262	1266	1296	1326	1325	784
45°	1016	1035	1052	1079	1053	786
55°	759	754	774	769	768	675
65°	466	460	478	460	463	464
75°	194	190	194	180	186	208
85°	24	23	24	23	22	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1721.3	1708.3	1696.2	1710.3	1718.9
5°	1694.4	1690.4	1695.1	1690.0	1730.8
7.5°	1659.6	1674.8	1683.6	1678.1	1680.5
10°	1641.1	1635.8	1655.4	1669.1	1667.1
12.5°	1621.3	1629.2	1630.3	1645.1	1646.4
15°	1622.4	1603.6	1613.5	1621.9	1622.6
17.5°	1559.3	1579.6	1586.4	1605.6	1581.8
20°	1551.6	1536.9	1551.6	1571.2	1568.2
22.5°	1504.3	1487.7	1519.5	1536.9	1535.8
25°	1450.5	1458.4	1482.2	1501.6	1498.5
27.5°	1403.3	1412.6	1446.5	1473.2	1456.0
30°	1367.0	1362.4	1391.0	1414.8	1428.0
32.5°	1302.0	1318.7	1352.2	1375.8	1363.2
35°	1262.5	1266.3	1295.6	1325.6	1324.7
37.5°	1193.6	1211.0	1252.2	1260.6	1252.8
40°	1134.7	1152.2	1189.4	1198.4	1194.7
42.5°	1091.3	1094.4	1126.4	1136.7	1120.2
45°	1015.8	1034.7	1051.9	1079.0	1053.4
47.5°	951.4	960.2	997.3	1004.5	991.1
50°	893.0	896.1	933.4	924.3	915.5
52.5°	819.7	832.7	853.6	851.8	841.5
55°	759.3	754.2	774.1	768.8	768.5
57.5°	686.8	695.6	711.9	703.5	690.1
60°	618.9	619.2	625.1	615.6	613.9
62.5°	543.4	546.0	547.3	535.6	554.6
65°	466.5	460.3	478.4	460.1	463.2
67.5°	395.7	398.8	397.1	385.6	390.0
70°	323.9	327.9	325.0	312.0	316.0
72.5°	258.2	253.4	256.5	240.2	247.7
75°	194.1	190.2	193.7	180.0	186.2
77.5°	132.2	135.3	133.1	125.8	130.0
80°	87.3	84.8	84.8	80.6	81.5
82.5°	50.9	48.5	47.8	46.5	48.5
85°	23.8	23.1	23.6	22.9	22.0
87.5°	8.6	8.8	8.8	8.4	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)