

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: P589176

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589176
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-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

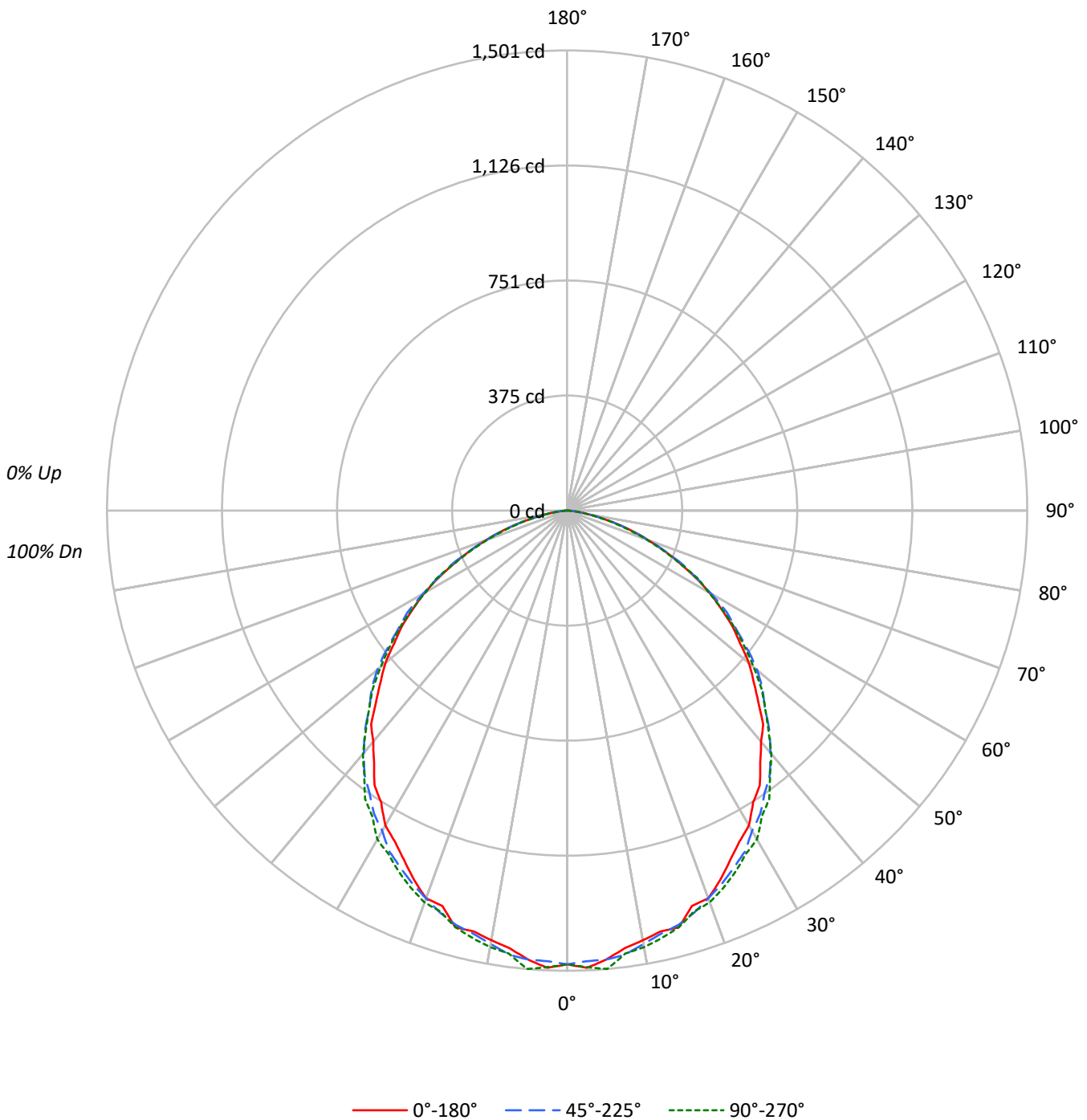
Lumens per Lamp: N/A
Luminaire Lumens: 3730.0 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	3983	3983	3983
5°	3969	3971	4055
10°	3889	3923	3951
15°	3920	3898	3920
20°	3853	3853	3895
25°	3735	3817	3859
30°	3684	3748	3848
35°	3597	3691	3774
40°	3457	3623	3640
45°	3352	3471	3477
50°	3242	3388	3324
55°	3089	3149	3127
60°	2889	2918	2865
65°	2576	2642	2558
70°	2210	2218	2156
75°	1750	1747	1679
80°	1173	1141	1096
85°	636	630	590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	3.7
10°-20°	394.5	10.6
20°-30°	591.1	15.8
30°-40°	700.6	18.8
40°-50°	701.9	18.8
50°-60°	595.8	16.0
60°-70°	401.7	10.8
70°-80°	176.5	4.7
80°-90°	28.7	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°	1124.9	30.2
0°-40°	1825.5	48.9
0°-60°	3123.1	83.7
0°-90°	3730.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3730.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1480	1480	1480	1480	1480	
5°	1470	1466	1470	1466	1501	139
15°	1407	1391	1399	1407	1407	392
25°	1258	1265	1285	1302	1300	582
35°	1095	1098	1124	1150	1149	680
45°	881	897	912	936	914	681
55°	658	654	671	667	666	586
65°	404	399	415	399	402	402
75°	168	165	168	156	162	180
85°	21	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°	1480.0	1480.0	1480.0	1480.0	1480.0
2.5°	1492.8	1481.5	1471.0	1483.2	1490.7
5°	1469.5	1466.0	1470.0	1465.6	1501.0
7.5°	1439.3	1452.5	1460.1	1455.3	1457.4
10°	1423.2	1418.6	1435.6	1447.5	1445.8
12.5°	1406.0	1412.9	1413.9	1426.7	1427.8
15°	1407.0	1390.7	1399.3	1406.6	1407.2
17.5°	1352.3	1369.9	1375.8	1392.5	1371.8
20°	1345.6	1332.8	1345.6	1362.6	1360.0
22.5°	1304.6	1290.2	1317.7	1332.8	1331.9
25°	1257.9	1264.8	1285.4	1302.3	1299.6
27.5°	1217.0	1225.1	1254.5	1277.6	1262.7
30°	1185.5	1181.5	1206.3	1227.0	1238.4
32.5°	1129.1	1143.7	1172.7	1193.1	1182.3
35°	1094.9	1098.2	1123.6	1149.6	1148.8
37.5°	1035.1	1050.2	1085.9	1093.2	1086.5
40°	984.1	999.2	1031.5	1039.3	1036.1
42.5°	946.5	949.1	976.8	985.8	971.5
45°	880.9	897.3	912.2	935.8	913.6
47.5°	825.1	832.8	864.9	871.2	859.5
50°	774.5	777.2	809.4	801.6	794.0
52.5°	710.8	722.1	740.3	738.7	729.8
55°	658.5	654.1	671.3	666.7	666.5
57.5°	595.6	603.3	617.4	610.1	598.5
60°	536.8	537.0	542.1	533.9	532.4
62.5°	471.2	473.5	474.7	464.5	481.0
65°	404.5	399.2	414.9	399.0	401.7
67.5°	343.2	345.9	344.3	334.4	338.2
70°	280.9	284.3	281.9	270.6	274.0
72.5°	224.0	219.8	222.4	208.3	214.8
75°	168.3	164.9	168.0	156.1	161.5
77.5°	114.7	117.3	115.4	109.1	112.7
80°	75.7	73.6	73.6	69.9	70.7
82.5°	44.1	42.0	41.5	40.3	42.0
85°	20.6	20.1	20.4	19.9	19.1
87.5°	7.5	7.6	7.6	7.3	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)