

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: P589033

Luminaire Tested: **FMR-24-2-LD4-2HI-40-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589033
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-LD4-2HI-40-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

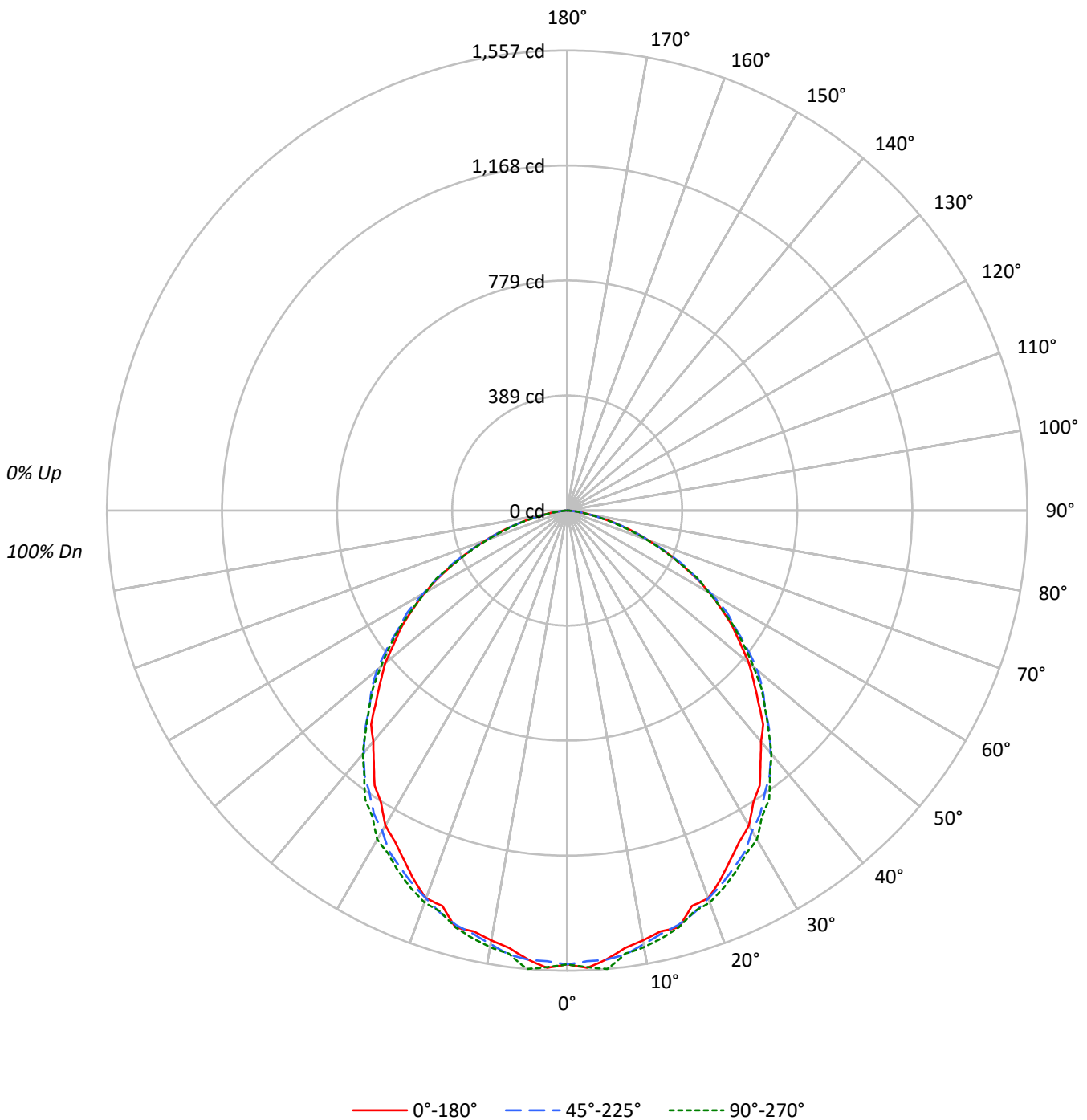
Lumens per Lamp: N/A
Luminaire Lumens: 3870.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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				
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°	4132	4132	4132
5°	4118	4120	4207
10°	4035	4070	4099
15°	4067	4045	4067
20°	3998	3998	4041
25°	3875	3960	4004
30°	3822	3889	3993
35°	3732	3830	3915
40°	3587	3759	3776
45°	3478	3602	3607
50°	3364	3516	3449
55°	3205	3268	3244
60°	2997	3027	2973
65°	2672	2741	2653
70°	2293	2301	2237
75°	1816	1812	1742
80°	1216	1182	1137
85°	661	655	611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.4	3.7
10°-20°	409.4	10.6
20°-30°	613.3	15.8
30°-40°	726.9	18.8
40°-50°	728.2	18.8
50°-60°	618.1	16.0
60°-70°	416.8	10.8
70°-80°	183.1	4.7
80°-90°	29.7	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°	1167.1	30.2
0°-40°	1894.0	48.9
0°-60°	3240.4	83.7
0°-90°	3870.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3870.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1525	1521	1525	1521	1557	144
15°	1460	1443	1452	1459	1460	407
25°	1305	1312	1334	1351	1348	603
35°	1136	1139	1166	1193	1192	705
45°	914	931	946	971	948	707
55°	683	679	696	692	692	608
65°	420	414	430	414	417	417
75°	175	171	174	162	168	187
85°	21	21	21	21	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1535.5	1535.5	1535.5	1535.5	1535.5
2.5°	1548.8	1537.1	1526.2	1538.9	1546.6
5°	1524.6	1521.0	1525.2	1520.6	1557.3
7.5°	1493.3	1507.0	1514.9	1509.9	1512.1
10°	1476.6	1471.9	1489.5	1501.8	1500.0
12.5°	1458.8	1465.9	1466.9	1480.2	1481.4
15°	1459.8	1442.9	1451.9	1459.4	1460.0
17.5°	1403.1	1421.3	1427.5	1444.7	1423.3
20°	1396.1	1382.9	1396.1	1413.8	1411.0
22.5°	1353.5	1338.6	1367.2	1382.9	1381.9
25°	1305.1	1312.3	1333.7	1351.1	1348.4
27.5°	1262.7	1271.0	1301.6	1325.6	1310.1
30°	1230.0	1225.8	1251.6	1273.0	1284.9
32.5°	1171.5	1186.6	1216.7	1237.9	1226.6
35°	1136.0	1139.4	1165.8	1192.7	1191.9
37.5°	1074.0	1089.6	1126.7	1134.2	1127.3
40°	1021.0	1036.7	1070.2	1078.3	1075.0
42.5°	982.0	984.8	1013.5	1022.8	1008.0
45°	914.0	931.0	946.5	970.9	947.9
47.5°	856.1	864.0	897.3	903.9	891.8
50°	803.5	806.3	839.8	831.7	823.8
52.5°	737.5	749.2	768.1	766.5	757.2
55°	683.2	678.6	696.5	691.7	691.5
57.5°	618.0	625.9	640.6	633.0	620.9
60°	556.9	557.1	562.5	553.9	552.4
62.5°	488.9	491.3	492.5	482.0	499.0
65°	419.7	414.2	430.4	414.0	416.7
67.5°	356.1	358.8	357.3	347.0	350.9
70°	291.4	295.0	292.4	280.7	284.3
72.5°	232.4	228.0	230.8	216.1	222.8
75°	174.7	171.1	174.3	162.0	167.5
77.5°	119.0	121.7	119.7	113.2	117.0
80°	78.5	76.3	76.3	72.6	73.4
82.5°	45.8	43.6	43.0	41.8	43.6
85°	21.4	20.8	21.2	20.6	19.8
87.5°	7.7	7.9	7.9	7.5	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)