

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: P589393

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589393
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-35-UNV-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

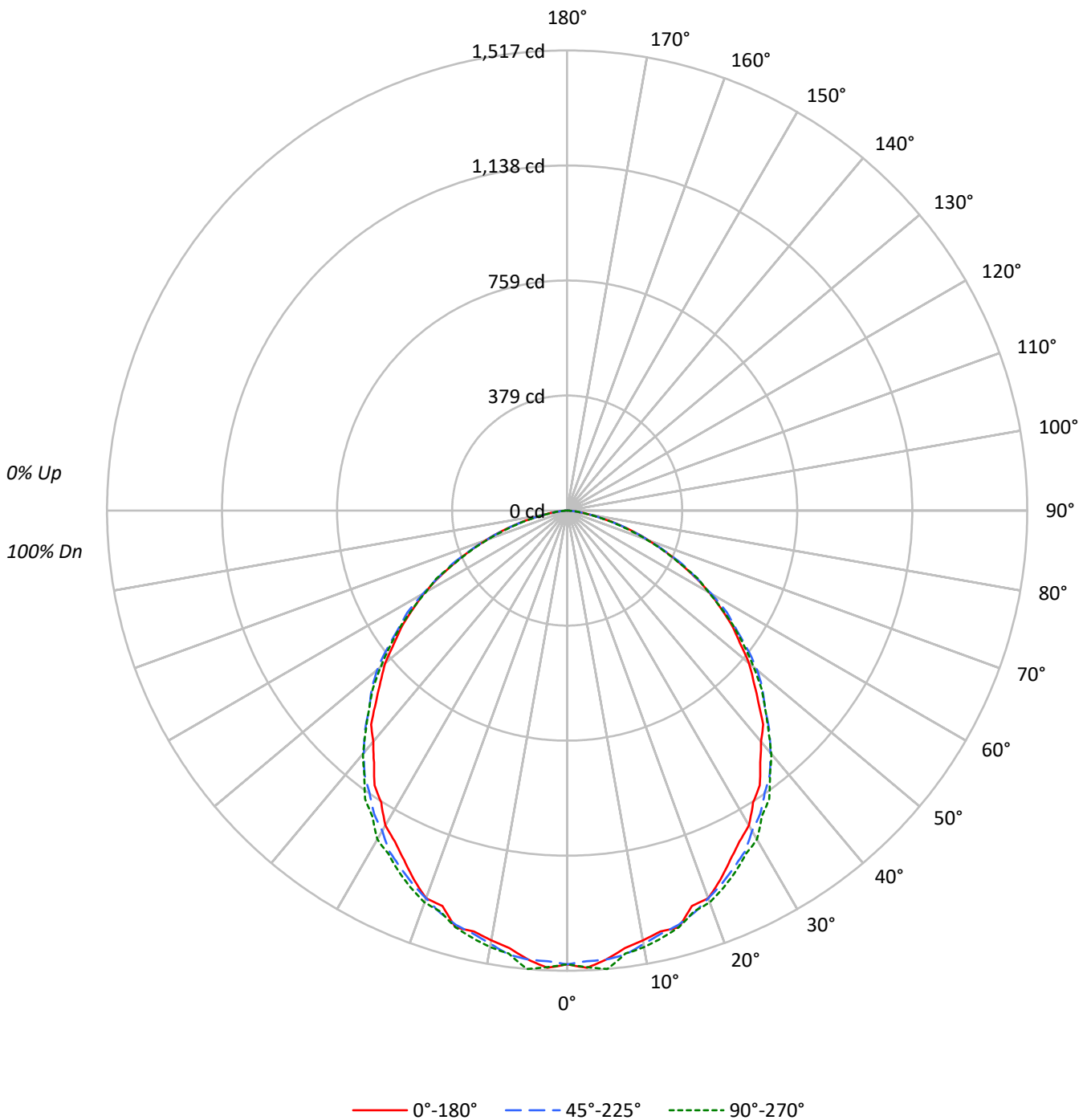
Lumens per Lamp: N/A
Luminaire Lumens: 3770.0 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4025	4025	4025
5°	4012	4014	4098
10°	3931	3965	3993
15°	3962	3940	3962
20°	3895	3895	3936
25°	3775	3858	3900
30°	3723	3789	3889
35°	3636	3731	3814
40°	3494	3662	3679
45°	3389	3509	3514
50°	3277	3425	3360
55°	3122	3183	3161
60°	2920	2949	2896
65°	2604	2670	2585
70°	2234	2242	2179
75°	1770	1765	1697
80°	1185	1153	1108
85°	645	639	596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.7	3.7
10°-20°	398.8	10.6
20°-30°	597.5	15.8
30°-40°	708.1	18.8
40°-50°	709.4	18.8
50°-60°	602.2	16.0
60°-70°	406.0	10.8
70°-80°	178.4	4.7
80°-90°	29.0	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°	1136.9	30.2
0°-40°	1845.0	48.9
0°-60°	3156.6	83.7
0°-90°	3770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1485	1482	1486	1481	1517	140
15°	1422	1406	1414	1422	1422	396
25°	1271	1278	1299	1316	1314	588
35°	1107	1110	1136	1162	1161	687
45°	890	907	922	946	923	689
55°	666	661	678	674	674	592
65°	409	404	419	403	406	407
75°	170	167	170	158	163	182
85°	21	20	21	20	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.8	1495.8	1495.8	1495.8	1495.8
2.5°	1508.8	1497.4	1486.8	1499.1	1506.7
5°	1485.2	1481.7	1485.8	1481.4	1517.1
7.5°	1454.7	1468.0	1475.8	1470.9	1473.1
10°	1438.5	1433.8	1451.0	1463.0	1461.3
12.5°	1421.1	1428.0	1429.0	1442.0	1443.1
15°	1422.1	1405.6	1414.3	1421.7	1422.3
17.5°	1366.8	1384.6	1390.6	1407.4	1386.5
20°	1360.1	1347.1	1360.1	1377.3	1374.6
22.5°	1318.5	1304.1	1331.9	1347.1	1346.2
25°	1271.4	1278.4	1299.2	1316.2	1313.5
27.5°	1230.1	1238.2	1267.9	1291.3	1276.2
30°	1198.2	1194.2	1219.3	1240.1	1251.7
32.5°	1141.2	1155.9	1185.3	1205.9	1194.9
35°	1106.7	1110.0	1135.6	1161.9	1161.1
37.5°	1046.2	1061.5	1097.6	1104.9	1098.2
40°	994.7	1009.9	1042.5	1050.5	1047.2
42.5°	956.6	959.3	987.3	996.4	981.9
45°	890.4	907.0	922.0	945.8	923.4
47.5°	834.0	841.7	874.1	880.5	868.7
50°	782.8	785.5	818.1	810.2	802.5
52.5°	718.5	729.9	748.2	746.7	737.6
55°	665.5	661.1	678.5	673.9	673.7
57.5°	602.0	609.7	624.0	616.7	604.9
60°	542.5	542.7	547.9	539.6	538.1
62.5°	476.3	478.6	479.8	469.5	486.1
65°	408.9	403.5	419.3	403.3	406.0
67.5°	346.9	349.6	348.0	338.0	341.9
70°	283.9	287.4	284.9	273.5	277.0
72.5°	226.4	222.1	224.8	210.5	217.1
75°	170.2	166.7	169.8	157.8	163.2
77.5°	115.9	118.6	116.7	110.3	114.0
80°	76.5	74.4	74.4	70.7	71.5
82.5°	44.6	42.5	41.9	40.8	42.5
85°	20.9	20.3	20.7	20.1	19.3
87.5°	7.5	7.7	7.7	7.3	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)