

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: P589246

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589246
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-50-UNV-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

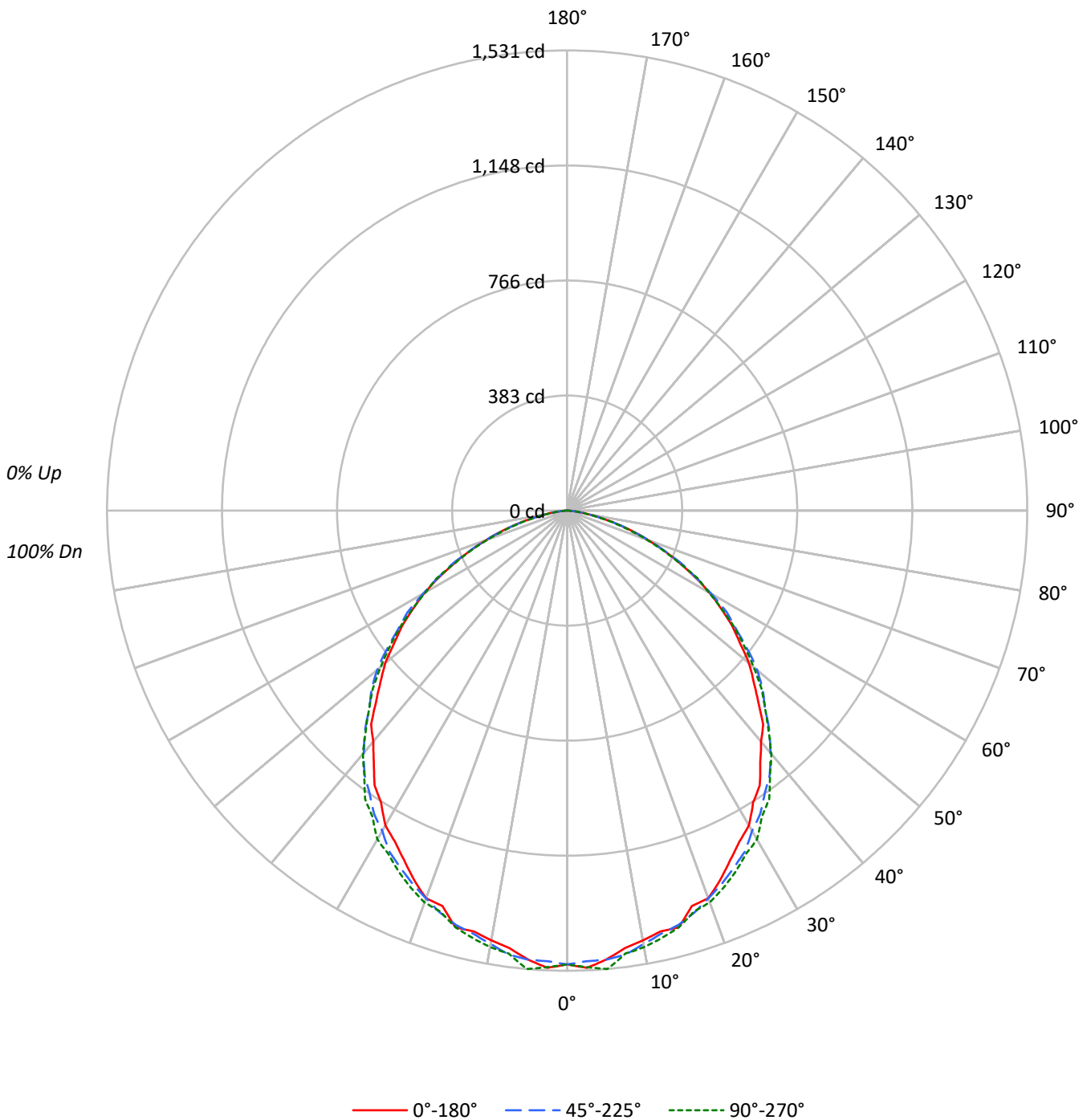
Lumens per Lamp: N/A
Luminaire Lumens: 3805.0 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	4063	4063	4063
5°	4049	4051	4136
10°	3967	4002	4030
15°	3999	3977	3999
20°	3931	3931	3973
25°	3810	3893	3936
30°	3758	3824	3925
35°	3669	3765	3850
40°	3527	3696	3713
45°	3420	3542	3547
50°	3307	3457	3391
55°	3151	3213	3190
60°	2947	2976	2923
65°	2628	2695	2609
70°	2254	2262	2199
75°	1785	1781	1712
80°	1196	1162	1117
85°	651	645	602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.0	3.7
10°-20°	402.5	10.6
20°-30°	603.0	15.8
30°-40°	714.7	18.8
40°-50°	716.0	18.8
50°-60°	607.8	16.0
60°-70°	409.8	10.8
70°-80°	180.0	4.7
80°-90°	29.3	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°	1147.5	30.2
0°-40°	1862.2	48.9
0°-60°	3185.9	83.7
0°-90°	3805.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3805.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1499	1496	1500	1495	1531	141
15°	1435	1419	1428	1435	1436	400
25°	1283	1290	1311	1328	1326	593
35°	1117	1120	1146	1173	1172	693
45°	899	915	931	955	932	695
55°	672	667	685	680	680	598
65°	413	407	423	407	410	410
75°	172	168	171	159	165	184
85°	21	20	21	20	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1509.7	1509.7	1509.7	1509.7	1509.7
2.5°	1522.8	1511.3	1500.6	1513.0	1520.6
5°	1499.0	1495.5	1499.6	1495.1	1531.2
7.5°	1468.2	1481.7	1489.5	1484.6	1486.7
10°	1451.8	1447.2	1464.5	1476.6	1474.8
12.5°	1434.3	1441.3	1442.3	1455.3	1456.5
15°	1435.3	1418.7	1427.5	1434.9	1435.5
17.5°	1379.5	1397.4	1403.5	1420.5	1399.4
20°	1372.7	1359.6	1372.7	1390.0	1387.3
22.5°	1330.8	1316.2	1344.2	1359.6	1358.7
25°	1283.2	1290.2	1311.3	1328.4	1325.7
27.5°	1241.5	1249.7	1279.7	1303.3	1288.1
30°	1209.3	1205.2	1230.6	1251.6	1263.3
32.5°	1151.8	1166.7	1196.3	1217.1	1206.0
35°	1116.9	1120.3	1146.2	1172.7	1171.9
37.5°	1055.9	1071.3	1107.8	1115.2	1108.4
40°	1003.9	1019.3	1052.2	1060.2	1056.9
42.5°	965.5	968.2	996.5	1005.6	991.0
45°	898.6	915.4	930.6	954.6	932.0
47.5°	841.7	849.5	882.3	888.7	876.8
50°	790.0	792.8	825.7	817.7	809.9
52.5°	725.1	736.6	755.2	753.6	744.4
55°	671.7	667.2	684.8	680.1	679.9
57.5°	607.6	615.4	629.8	622.4	610.5
60°	547.6	547.8	553.0	544.6	543.1
62.5°	480.7	483.0	484.2	473.9	490.6
65°	412.7	407.2	423.2	407.0	409.7
67.5°	350.1	352.8	351.3	341.1	345.0
70°	286.5	290.1	287.5	276.0	279.5
72.5°	228.5	224.2	226.9	212.5	219.1
75°	171.7	168.2	171.3	159.3	164.7
77.5°	117.0	119.7	117.7	111.3	115.0
80°	77.2	75.0	75.0	71.3	72.1
82.5°	45.0	42.9	42.3	41.1	42.9
85°	21.1	20.5	20.9	20.3	19.5
87.5°	7.6	7.8	7.8	7.4	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)