

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: P589258

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589258
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-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

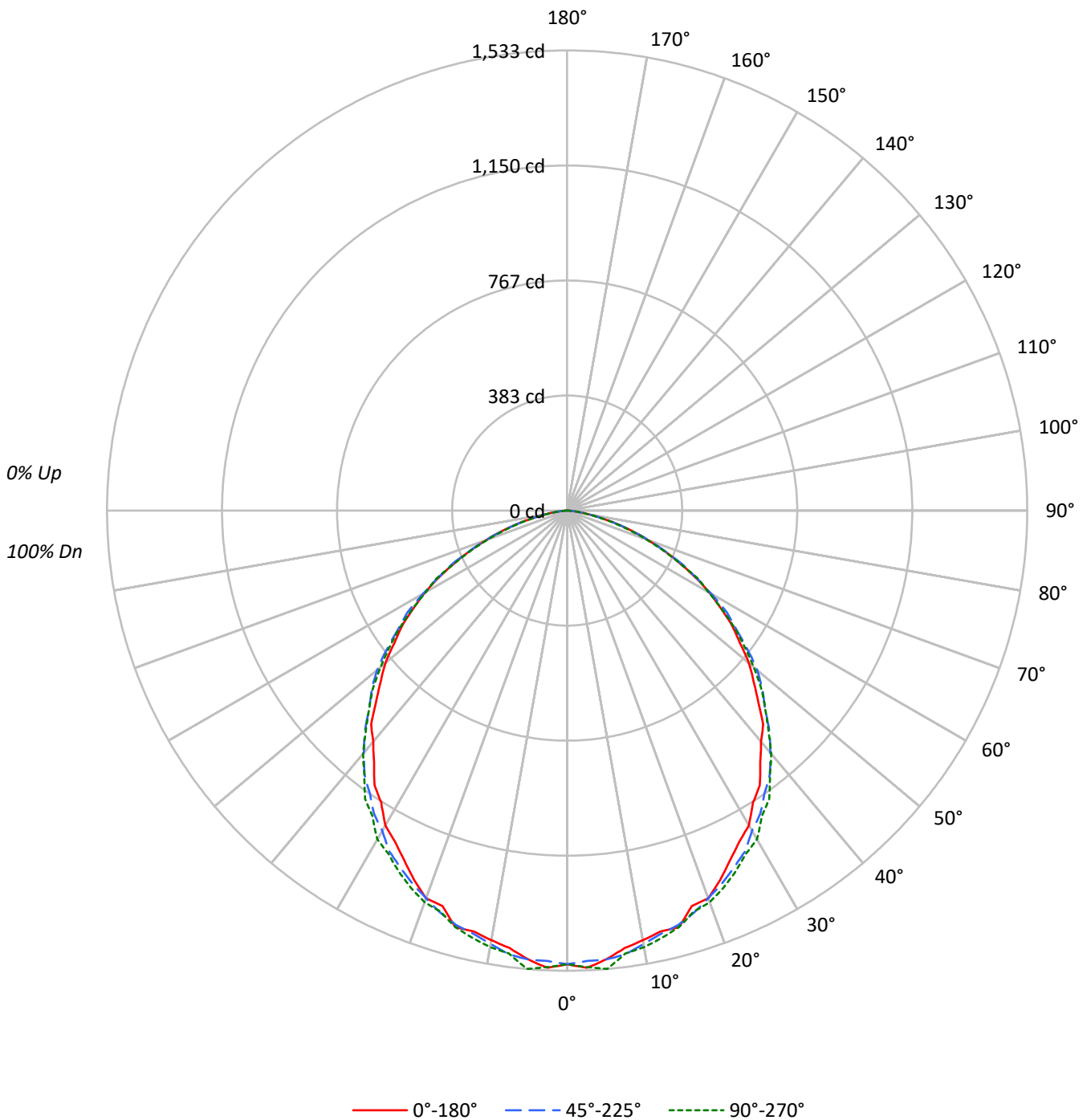
Lumens per Lamp: N/A
Luminaire Lumens: 3809.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4067	4067	4067
5°	4054	4055	4140
10°	3971	4006	4034
15°	4003	3981	4003
20°	3935	3935	3977
25°	3814	3898	3940
30°	3762	3828	3930
35°	3673	3769	3854
40°	3530	3700	3717
45°	3424	3545	3550
50°	3311	3460	3394
55°	3155	3216	3193
60°	2950	2979	2926
65°	2630	2697	2612
70°	2257	2264	2201
75°	1787	1783	1714
80°	1198	1164	1119
85°	651	645	602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.2	3.7
10°-20°	402.9	10.6
20°-30°	603.6	15.8
30°-40°	715.4	18.8
40°-50°	716.8	18.8
50°-60°	608.4	16.0
60°-70°	410.2	10.8
70°-80°	180.2	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°	1148.7	30.2
0°-40°	1864.1	48.9
0°-60°	3189.3	83.7
0°-90°	3809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1511	1511	1511	1511	1511	
5°	1501	1497	1501	1497	1533	141
15°	1437	1420	1429	1436	1437	400
25°	1285	1292	1313	1330	1327	594
35°	1118	1121	1147	1174	1173	694
45°	900	916	932	956	933	696
55°	672	668	686	681	681	598
65°	413	408	424	407	410	411
75°	172	168	172	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°	1511.3	1511.3	1511.3	1511.3	1511.3
2.5°	1524.4	1512.9	1502.1	1514.6	1522.2
5°	1500.6	1497.1	1501.2	1496.7	1532.8
7.5°	1469.8	1483.2	1491.0	1486.1	1488.3
10°	1453.4	1448.7	1466.0	1478.1	1476.4
12.5°	1435.8	1442.8	1443.8	1456.9	1458.0
15°	1436.8	1420.2	1429.0	1436.4	1437.0
17.5°	1381.0	1398.9	1405.0	1421.9	1400.9
20°	1374.1	1361.1	1374.1	1391.5	1388.8
22.5°	1332.2	1317.5	1345.6	1361.1	1360.1
25°	1284.6	1291.6	1312.7	1329.8	1327.1
27.5°	1242.8	1251.0	1281.1	1304.7	1289.4
30°	1210.6	1206.5	1231.9	1253.0	1264.7
32.5°	1153.0	1167.9	1197.5	1218.4	1207.3
35°	1118.1	1121.4	1147.4	1173.9	1173.1
37.5°	1057.0	1072.5	1108.9	1116.4	1109.5
40°	1004.9	1020.4	1053.3	1061.3	1058.0
42.5°	966.5	969.2	997.5	1006.7	992.1
45°	899.6	916.4	931.6	955.6	932.9
47.5°	842.6	850.4	883.2	889.6	877.7
50°	790.9	793.6	826.6	818.6	810.8
52.5°	725.9	737.4	756.0	754.4	745.2
55°	672.4	667.9	685.5	680.8	680.6
57.5°	608.2	616.0	630.5	623.1	611.2
60°	548.1	548.3	553.6	545.2	543.6
62.5°	481.2	483.5	484.7	474.4	491.2
65°	413.1	407.6	423.6	407.4	410.2
67.5°	350.5	353.2	351.6	341.5	345.4
70°	286.8	290.4	287.8	276.3	279.8
72.5°	228.7	224.4	227.1	212.7	219.3
75°	171.9	168.4	171.5	159.4	164.9
77.5°	117.1	119.8	117.9	111.4	115.1
80°	77.3	75.1	75.1	71.4	72.2
82.5°	45.1	42.9	42.3	41.2	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)