

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: P545547

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-82-88-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P545547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-2-LD4-2HI-35-UNV-82-88-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

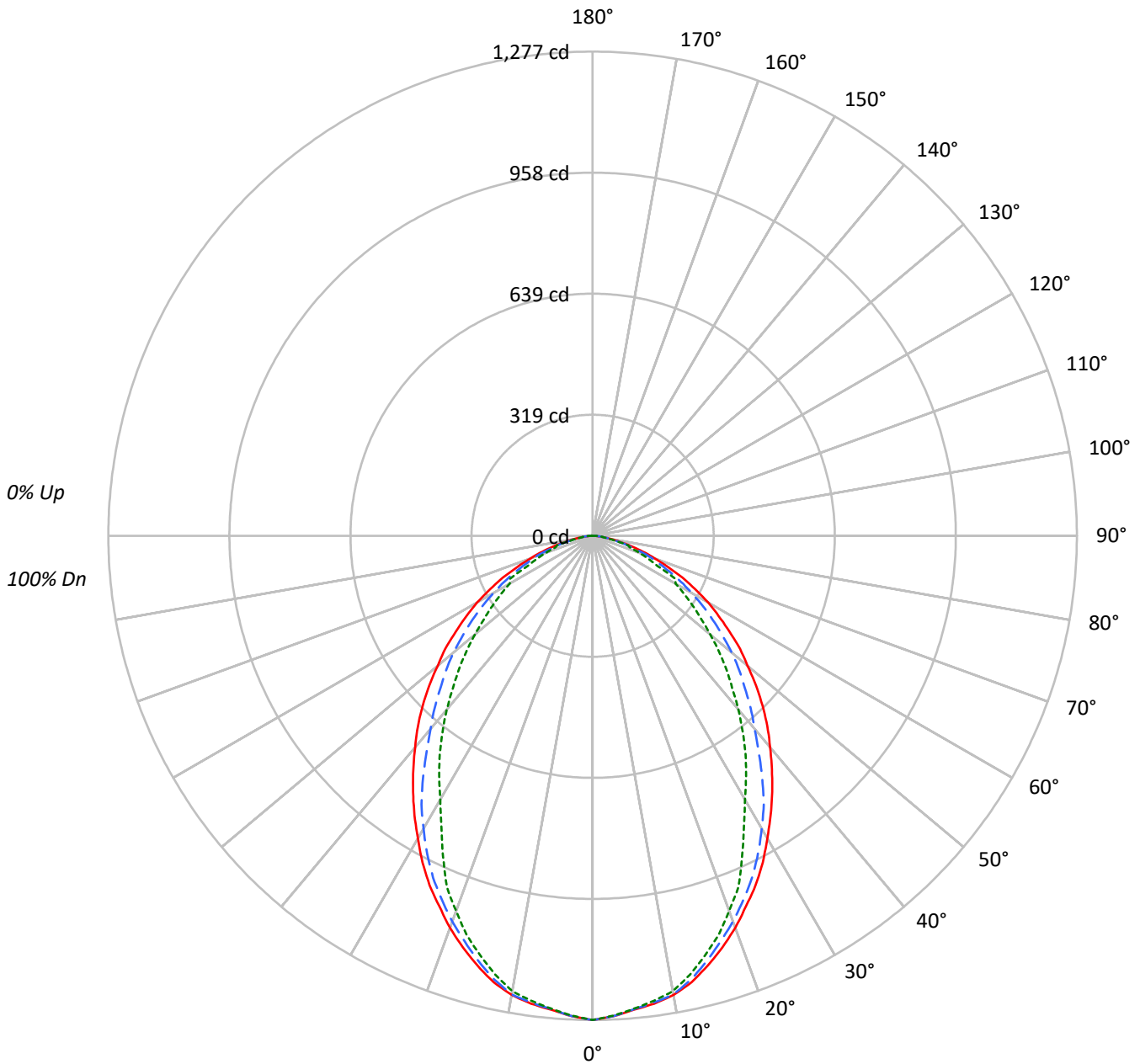
Lumens per Lamp: N/A
Luminaire Lumens: 2507.0 lumens
Efficiency: N/A
Efficacy: 58.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100				
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75				
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44				
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36				
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6873	6873	6873
5°	6780	6772	6763
10°	6721	6713	6665
15°	6540	6474	6383
20°	6300	6198	6029
25°	6040	5909	5540
30°	5725	5542	4991
35°	5422	5121	4617
40°	5113	4668	4201
45°	4820	4315	3798
50°	4463	4005	3387
55°	4128	3629	3034
60°	3782	3242	2718
65°	3328	2839	2407
70°	2741	2486	2044
75°	2179	1903	1996
80°	1463	1373	1280
85°	914	1093	1278



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.9	4.7
10°-20°	326.2	13.0
20°-30°	451.7	18.0
30°-40°	481.6	19.2
40°-50°	439.4	17.5
50°-60°	344.2	13.7
60°-70°	224.3	8.9
70°-80°	99.4	4.0
80°-90°	21.4	0.9
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°	896.8	35.8
0°-40°	1378.4	55.0
0°-60°	2161.9	86.2
0°-90°	2507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2507.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1277	1277	1277	1277	1277	
5°	1255	1253	1253	1252	1252	119
15°	1174	1174	1162	1150	1146	330
25°	1017	1011	995	960	933	467
35°	825	819	780	720	703	516
45°	633	620	567	520	499	488
55°	440	427	387	341	323	395
65°	261	246	223	227	189	258
75°	105	97	92	87	96	112
85°	15	16	18	19	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1277.0	1277.0	1277.0	1277.0	1277.0
2.5°	1268.2	1268.2	1268.2	1266.7	1266.7
5°	1254.9	1253.4	1253.4	1251.9	1251.9
7.5°	1244.6	1243.1	1241.6	1240.1	1237.2
10°	1229.8	1229.8	1228.3	1220.9	1219.5
12.5°	1206.2	1204.7	1198.8	1188.5	1185.5
15°	1173.7	1173.7	1161.9	1150.1	1145.6
17.5°	1138.3	1136.8	1122.0	1110.2	1104.3
20°	1099.9	1096.9	1082.2	1063.0	1052.6
22.5°	1057.1	1057.1	1039.3	1014.2	1003.9
25°	1017.2	1011.3	995.1	959.6	933.0
27.5°	971.4	962.6	944.9	894.7	863.7
30°	921.2	916.8	891.7	826.7	803.1
32.5°	874.0	866.6	840.0	772.1	752.9
35°	825.3	819.4	779.5	720.5	702.7
37.5°	776.6	769.2	719.0	671.7	649.6
40°	727.8	719.0	664.4	621.5	597.9
42.5°	682.1	670.3	617.1	571.3	544.8
45°	633.3	620.1	566.9	519.7	499.0
47.5°	584.6	572.8	524.1	475.4	451.8
50°	533.0	522.6	478.3	429.6	404.5
52.5°	490.1	473.9	431.1	382.4	361.7
55°	439.9	426.7	386.8	341.0	323.3
57.5°	394.2	380.9	344.0	301.2	286.4
60°	351.4	332.2	301.2	264.3	252.5
62.5°	304.1	289.4	262.8	231.8	246.5
65°	261.3	246.5	222.9	227.4	189.0
67.5°	214.1	206.7	186.0	165.3	159.4
70°	174.2	165.3	158.0	135.8	129.9
72.5°	138.8	129.9	119.6	107.8	103.3
75°	104.8	97.4	91.5	87.1	96.0
77.5°	72.3	69.4	65.0	60.5	59.1
80°	47.2	45.8	44.3	42.8	41.3
82.5°	28.1	28.1	28.1	28.1	28.1
85°	14.8	16.2	17.7	19.2	20.7
87.5°	8.9	8.9	10.3	11.8	13.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)