

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P589973

Luminaire Tested: FSR-24-2-LD4-1LO-40-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589973
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
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-40-UNV-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

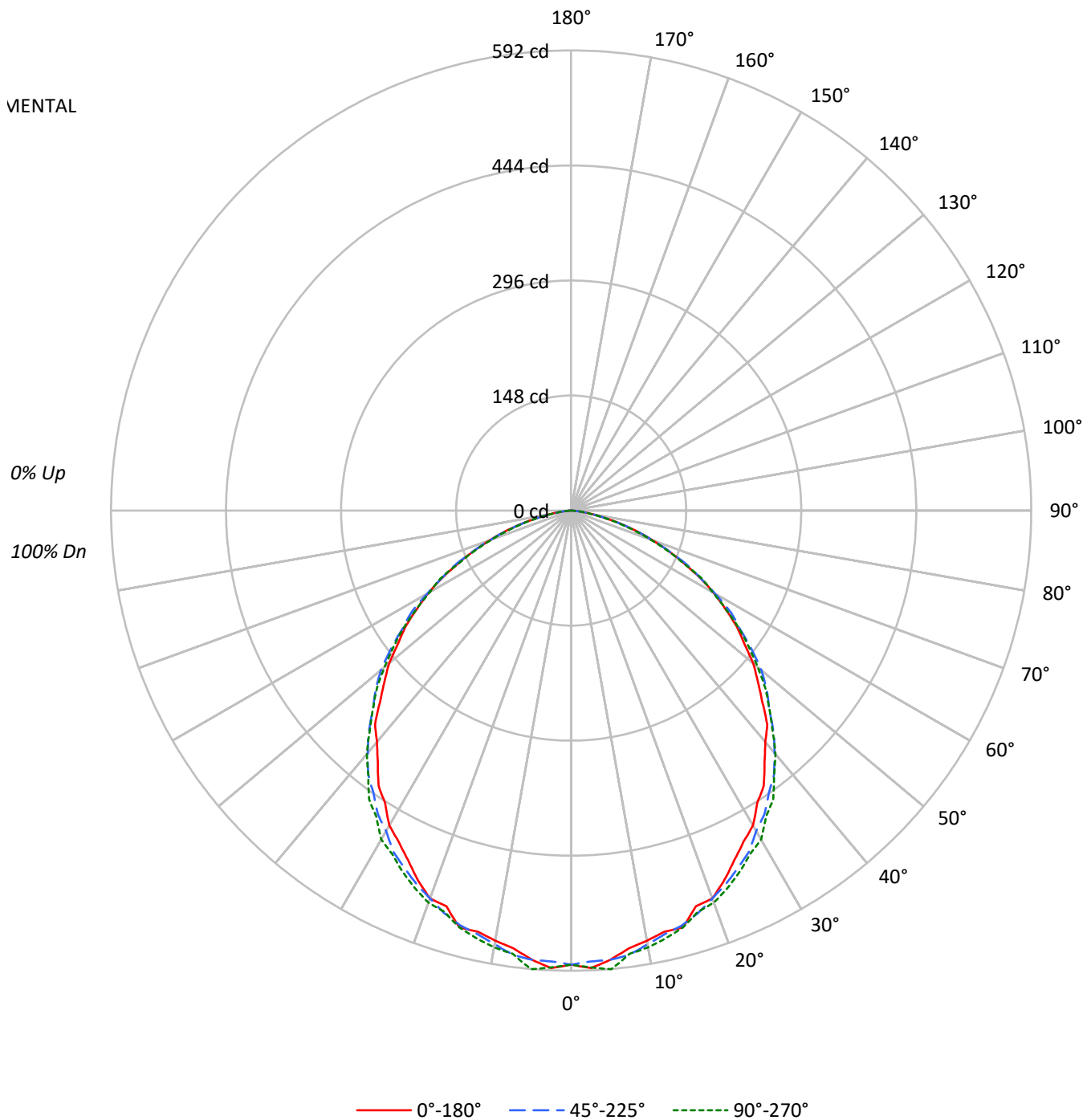
Lumens per Lamp: N/A
Luminaire Lumens: 1472.0 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V):
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: 24 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°	1572	1572	1572
5°	1566	1567	1600
10°	1535	1548	1559
15°	1547	1538	1547
20°	1521	1521	1537
25°	1474	1506	1523
30°	1454	1479	1519
35°	1419	1457	1489
40°	1364	1430	1436
45°	1323	1370	1372
50°	1279	1337	1312
55°	1219	1243	1234
60°	1140	1151	1131
65°	1016	1042	1009
70°	873	875	851
75°	690	689	662
80°	463	449	432
85°	250	250	232

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1405 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	3.7
10°-20°	155.7	10.6
20°-30°	233.3	15.8
30°-40°	276.5	18.8
40°-50°	277.0	18.8
50°-60°	235.1	16.0
60°-70°	158.5	10.8
70°-80°	69.7	4.7
80°-90°	11.3	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°	443.9	30.2
0°-40°	720.4	48.9
0°-60°	1232.5	83.7
0°-90°	1472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	580	578	580	578	592	55
15°	555	549	552	555	555	155
25°	496	499	507	514	513	229
35°	432	433	443	454	453	268
45°	348	354	360	369	360	269
55°	260	258	265	263	263	231
65°	160	158	164	158	158	159
75°	66	65	66	62	64	71
85°	8	8	8	8	8	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	584.1	584.1	584.1	584.1	584.1
2.5°	589.1	584.7	580.5	585.3	588.3
5°	579.9	578.5	580.1	578.4	592.3
7.5°	568.0	573.2	576.2	574.3	575.2
10°	561.7	559.8	566.6	571.2	570.6
12.5°	554.9	557.6	558.0	563.0	563.5
15°	555.2	548.8	552.2	555.1	555.3
17.5°	533.7	540.6	543.0	549.5	541.4
20°	531.0	526.0	531.0	537.8	536.7
22.5°	514.8	509.2	520.0	526.0	525.6
25°	496.4	499.1	507.3	513.9	512.9
27.5°	480.3	483.5	495.1	504.2	498.3
30°	467.8	466.3	476.1	484.2	488.7
32.5°	445.6	451.3	462.8	470.9	466.6
35°	432.1	433.4	443.4	453.7	453.4
37.5°	408.5	414.5	428.6	431.4	428.8
40°	388.4	394.3	407.1	410.2	408.9
42.5°	373.5	374.6	385.5	389.0	383.4
45°	347.6	354.1	360.0	369.3	360.5
47.5°	325.6	328.6	341.3	343.8	339.2
50°	305.6	306.7	319.4	316.3	313.3
52.5°	280.5	285.0	292.1	291.5	288.0
55°	259.9	258.1	264.9	263.1	263.0
57.5°	235.1	238.1	243.7	240.8	236.2
60°	211.8	211.9	213.9	210.7	210.1
62.5°	186.0	186.9	187.3	183.3	189.8
65°	159.6	157.5	163.7	157.5	158.5
67.5°	135.4	136.5	135.9	132.0	133.5
70°	110.9	112.2	111.2	106.8	108.1
72.5°	88.4	86.7	87.8	82.2	84.8
75°	66.4	65.1	66.3	61.6	63.7
77.5°	45.2	46.3	45.5	43.1	44.5
80°	29.9	29.0	29.0	27.6	27.9
82.5°	17.4	16.6	16.4	15.9	16.6
85°	8.1	7.9	8.1	7.8	7.5
87.5°	2.9	3.0	3.0	2.9	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)