

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: P559895

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559895
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-1LO-40-UNV-82-87-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

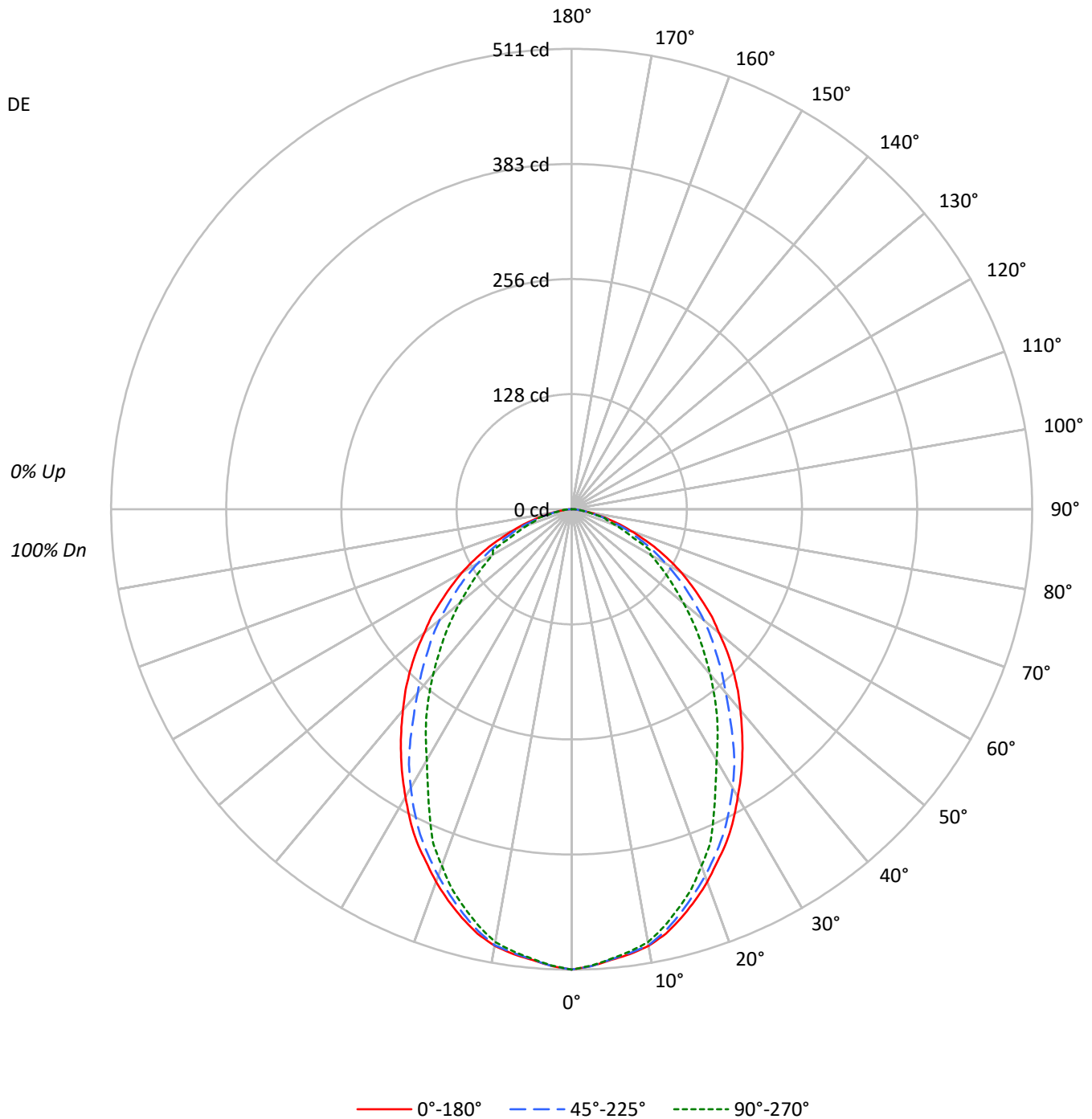
Lumens per Lamp: N/A
Luminaire Lumens: 1003.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2750	2750	2750
5°	2713	2709	2706
10°	2689	2685	2666
15°	2617	2590	2554
20°	2520	2479	2412
25°	2417	2364	2217
30°	2291	2217	1997
35°	2169	2049	1848
40°	2046	1867	1681
45°	1929	1726	1519
50°	1785	1603	1355
55°	1651	1453	1214
60°	1513	1297	1087
65°	1331	1136	963
70°	1097	995	818
75°	871	761	799
80°	586	549	511
85°	364	438	513

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1929 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	4.7
10°-20°	130.5	13.0
20°-30°	180.7	18.0
30°-40°	192.7	19.2
40°-50°	175.8	17.5
50°-60°	137.7	13.7
60°-70°	89.7	8.9
70°-80°	39.8	4.0
80°-90°	8.5	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°	358.8	35.8
0°-40°	551.5	55.0
0°-60°	865.0	86.2
0°-90°	1003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	502	502	502	501	501	48
15°	470	470	465	460	458	132
25°	407	405	398	384	373	187
35°	330	328	312	288	281	206
45°	253	248	227	208	200	195
55°	176	171	155	136	129	158
65°	104	99	89	91	76	103
75°	42	39	37	35	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.9	510.9	510.9	510.9	510.9
2.5°	507.4	507.4	507.4	506.8	506.8
5°	502.1	501.5	501.5	500.9	500.9
7.5°	497.9	497.3	496.7	496.1	495.0
10°	492.0	492.0	491.4	488.5	487.9
12.5°	482.6	482.0	479.6	475.5	474.3
15°	469.6	469.6	464.8	460.1	458.3
17.5°	455.4	454.8	448.9	444.2	441.8
20°	440.0	438.9	432.9	425.3	421.1
22.5°	422.9	422.9	415.8	405.8	401.6
25°	407.0	404.6	398.1	383.9	373.3
27.5°	388.6	385.1	378.0	357.9	345.5
30°	368.6	366.8	356.8	330.8	321.3
32.5°	349.7	346.7	336.1	308.9	301.2
35°	330.2	327.8	311.9	288.2	281.2
37.5°	310.7	307.7	287.6	268.7	259.9
40°	291.2	287.6	265.8	248.7	239.2
42.5°	272.9	268.2	246.9	228.6	218.0
45°	253.4	248.1	226.8	207.9	199.6
47.5°	233.9	229.2	209.7	190.2	180.7
50°	213.2	209.1	191.4	171.9	161.8
52.5°	196.1	189.6	172.5	153.0	144.7
55°	176.0	170.7	154.8	136.4	129.4
57.5°	157.7	152.4	137.6	120.5	114.6
60°	140.6	132.9	120.5	105.7	101.0
62.5°	121.7	115.8	105.1	92.7	98.6
65°	104.5	98.6	89.2	91.0	75.6
67.5°	85.6	82.7	74.4	66.2	63.8
70°	69.7	66.2	63.2	54.3	52.0
72.5°	55.5	52.0	47.8	43.1	41.3
75°	41.9	39.0	36.6	34.8	38.4
77.5°	28.9	27.8	26.0	24.2	23.6
80°	18.9	18.3	17.7	17.1	16.5
82.5°	11.2	11.2	11.2	11.2	11.2
85°	5.9	6.5	7.1	7.7	8.3
87.5°	3.5	3.5	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)