

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: P559320

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559320
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-12-1-LD4-2LO-40-UNV-82-88-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

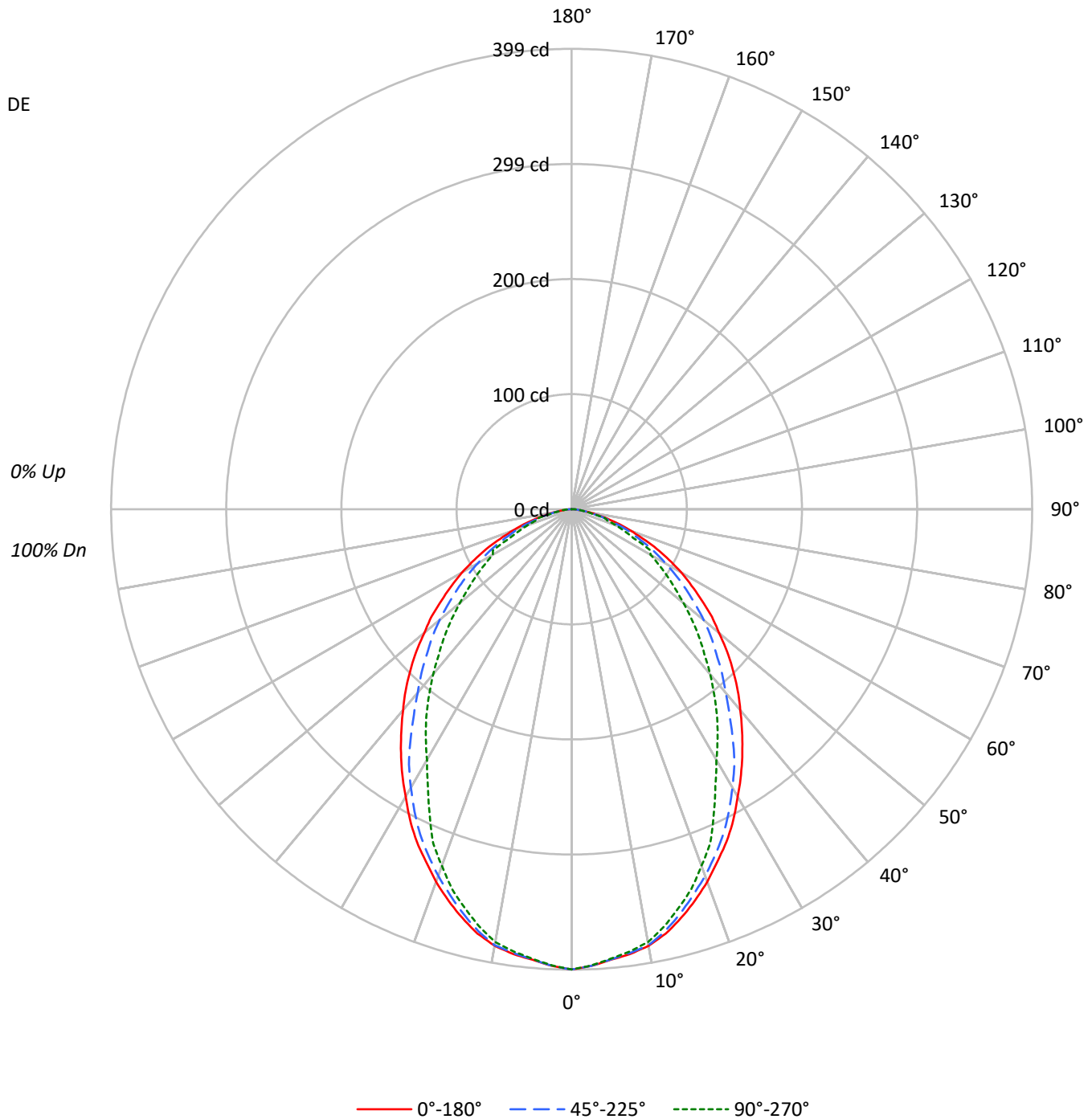
Lumens per Lamp: N/A
Luminaire Lumens: 783.0 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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					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°	4293	4293	4293
5°	4234	4230	4225
10°	4198	4193	4163
15°	4085	4044	3987
20°	3935	3872	3766
25°	3773	3691	3461
30°	3576	3462	3117
35°	3388	3200	2884
40°	3194	2916	2623
45°	3011	2696	2373
50°	2788	2502	2115
55°	2578	2267	1895
60°	2362	2026	1696
65°	2078	1773	1503
70°	1712	1552	1278
75°	1360	1189	1248
80°	917	855	800
85°	568	679	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3011 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	4.7
10°-20°	101.9	13.0
20°-30°	141.1	18.0
30°-40°	150.4	19.2
40°-50°	137.2	17.5
50°-60°	107.5	13.7
60°-70°	70.1	8.9
70°-80°	31.0	4.0
80°-90°	6.7	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°	280.1	35.8
0°-40°	430.5	55.0
0°-60°	675.2	86.2
0°-90°	783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	783.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	392	392	392	391	391	37
15°	367	367	363	359	358	103
25°	318	316	311	300	291	146
35°	258	256	244	225	220	161
45°	198	194	177	162	156	152
55°	137	133	121	106	101	123
65°	82	77	70	71	59	80
75°	33	30	29	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	398.8	398.8	398.8	398.8	398.8
2.5°	396.1	396.1	396.1	395.6	395.6
5°	391.9	391.5	391.5	391.0	391.0
7.5°	388.7	388.2	387.8	387.3	386.4
10°	384.1	384.1	383.6	381.3	380.9
12.5°	376.7	376.3	374.4	371.2	370.3
15°	366.6	366.6	362.9	359.2	357.8
17.5°	355.5	355.0	350.4	346.7	344.9
20°	343.5	342.6	338.0	332.0	328.8
22.5°	330.1	330.1	324.6	316.8	313.5
25°	317.7	315.9	310.8	299.7	291.4
27.5°	303.4	300.6	295.1	279.4	269.7
30°	287.7	286.3	278.5	258.2	250.8
32.5°	273.0	270.7	262.4	241.2	235.2
35°	257.8	255.9	243.5	225.0	219.5
37.5°	242.5	240.2	224.6	209.8	202.9
40°	227.3	224.6	207.5	194.1	186.7
42.5°	213.0	209.3	192.7	178.4	170.1
45°	197.8	193.7	177.1	162.3	155.9
47.5°	182.6	178.9	163.7	148.5	141.1
50°	166.5	163.2	149.4	134.2	126.3
52.5°	153.1	148.0	134.6	119.4	113.0
55°	137.4	133.3	120.8	106.5	101.0
57.5°	123.1	119.0	107.4	94.1	89.5
60°	109.7	103.7	94.1	82.5	78.8
62.5°	95.0	90.4	82.1	72.4	77.0
65°	81.6	77.0	69.6	71.0	59.0
67.5°	66.9	64.6	58.1	51.6	49.8
70°	54.4	51.6	49.3	42.4	40.6
72.5°	43.3	40.6	37.3	33.7	32.3
75°	32.7	30.4	28.6	27.2	30.0
77.5°	22.6	21.7	20.3	18.9	18.4
80°	14.8	14.3	13.8	13.4	12.9
82.5°	8.8	8.8	8.8	8.8	8.8
85°	4.6	5.1	5.5	6.0	6.5
87.5°	2.8	2.8	3.2	3.7	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)