

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: P559831

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559831
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

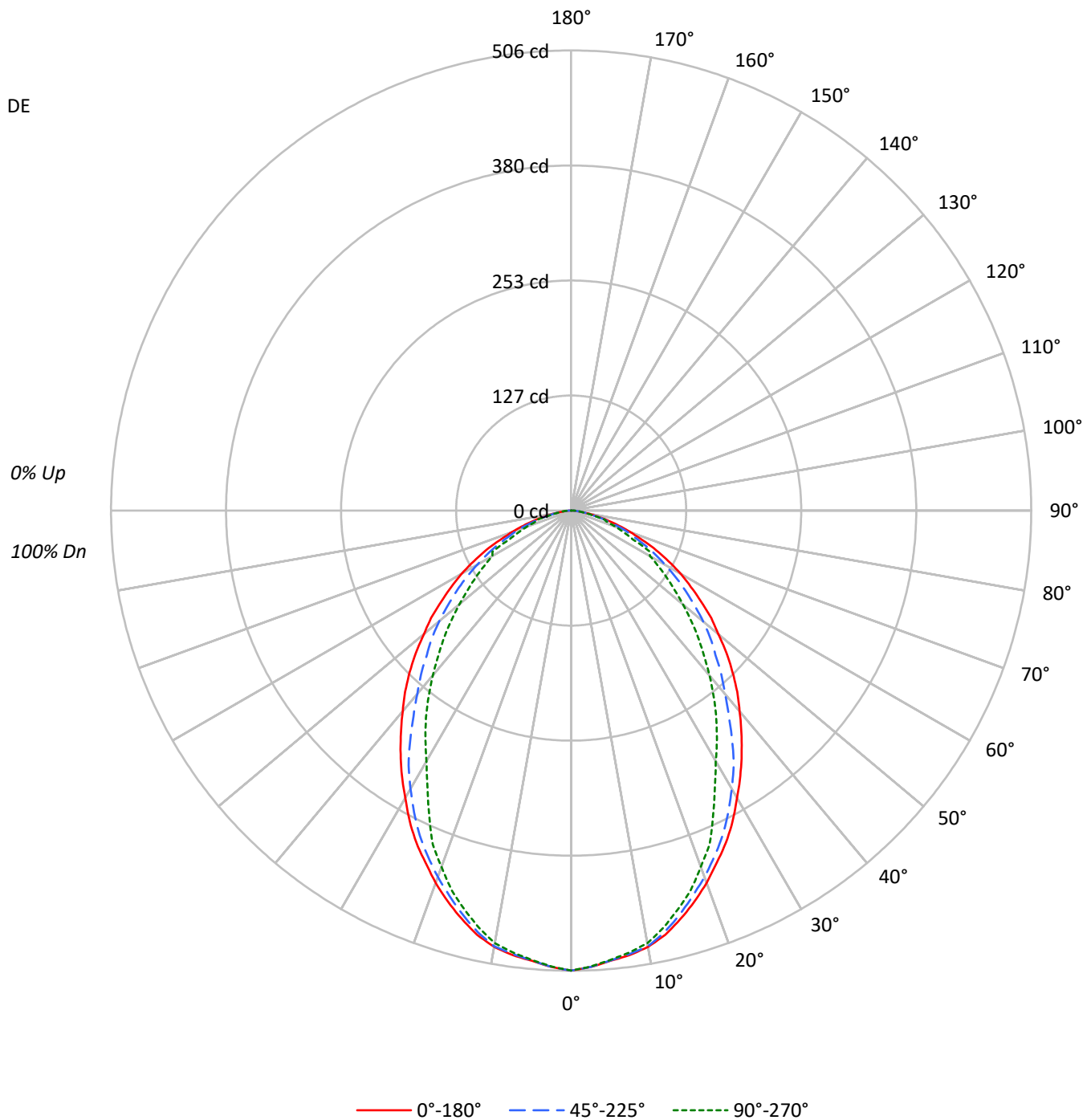
Lumens per Lamp: N/A
Luminaire Lumens: 993.0 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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	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	47	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°	2722	2722	2722
5°	2685	2682	2679
10°	2662	2659	2640
15°	2590	2564	2528
20°	2495	2455	2388
25°	2393	2340	2195
30°	2268	2195	1977
35°	2148	2029	1828
40°	2025	1848	1664
45°	1910	1709	1505
50°	1768	1587	1341
55°	1635	1437	1202
60°	1498	1284	1076
65°	1318	1124	953
70°	1086	985	810
75°	863	755	790
80°	580	542	508
85°	358	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1910 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	4.7
10°-20°	129.2	13.0
20°-30°	178.9	18.0
30°-40°	190.8	19.2
40°-50°	174.0	17.5
50°-60°	136.3	13.7
60°-70°	88.9	8.9
70°-80°	39.4	4.0
80°-90°	8.4	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°	355.2	35.8
0°-40°	546.0	55.0
0°-60°	856.3	86.2
0°-90°	993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	993.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	497	496	496	496	496	47
15°	465	465	460	456	454	131
25°	403	401	394	380	370	185
35°	327	324	309	285	278	204
45°	251	246	224	206	198	193
55°	174	169	153	135	128	156
65°	104	98	88	90	75	102
75°	42	39	36	34	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°	505.8	505.8	505.8	505.8	505.8
2.5°	502.3	502.3	502.3	501.7	501.7
5°	497.0	496.5	496.5	495.9	495.9
7.5°	493.0	492.4	491.8	491.2	490.0
10°	487.1	487.1	486.5	483.6	483.0
12.5°	477.8	477.2	474.8	470.7	469.6
15°	464.9	464.9	460.2	455.5	453.8
17.5°	450.9	450.3	444.4	439.7	437.4
20°	435.6	434.5	428.6	421.0	416.9
22.5°	418.7	418.7	411.7	401.7	397.6
25°	402.9	400.6	394.1	380.1	369.6
27.5°	384.8	381.3	374.2	354.4	342.1
30°	364.9	363.1	353.2	327.5	318.1
32.5°	346.2	343.3	332.7	305.8	298.2
35°	326.9	324.5	308.8	285.4	278.3
37.5°	307.6	304.7	284.8	266.1	257.3
40°	288.3	284.8	263.1	246.2	236.8
42.5°	270.2	265.5	244.4	226.3	215.8
45°	250.9	245.6	224.5	205.8	197.7
47.5°	231.6	226.9	207.6	188.3	178.9
50°	211.1	207.0	189.5	170.2	160.2
52.5°	194.1	187.7	170.8	151.5	143.3
55°	174.3	169.0	153.2	135.1	128.1
57.5°	156.1	150.9	136.3	119.3	113.4
60°	139.2	131.6	119.3	104.7	100.0
62.5°	120.5	114.6	104.1	91.8	97.7
65°	103.5	97.7	88.3	90.1	74.8
67.5°	84.8	81.9	73.7	65.5	63.2
70°	69.0	65.5	62.6	53.8	51.5
72.5°	55.0	51.5	47.4	42.7	40.9
75°	41.5	38.6	36.3	34.5	38.0
77.5°	28.7	27.5	25.7	24.0	23.4
80°	18.7	18.1	17.5	17.0	16.4
82.5°	11.1	11.1	11.1	11.1	11.1
85°	5.8	6.4	7.0	7.6	8.2
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)