

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: P558915

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-81-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558915
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-LD4-1STD-40-UNV-81-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 740.0 lumens
Efficiency: N/A
Efficacy: 89.2 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

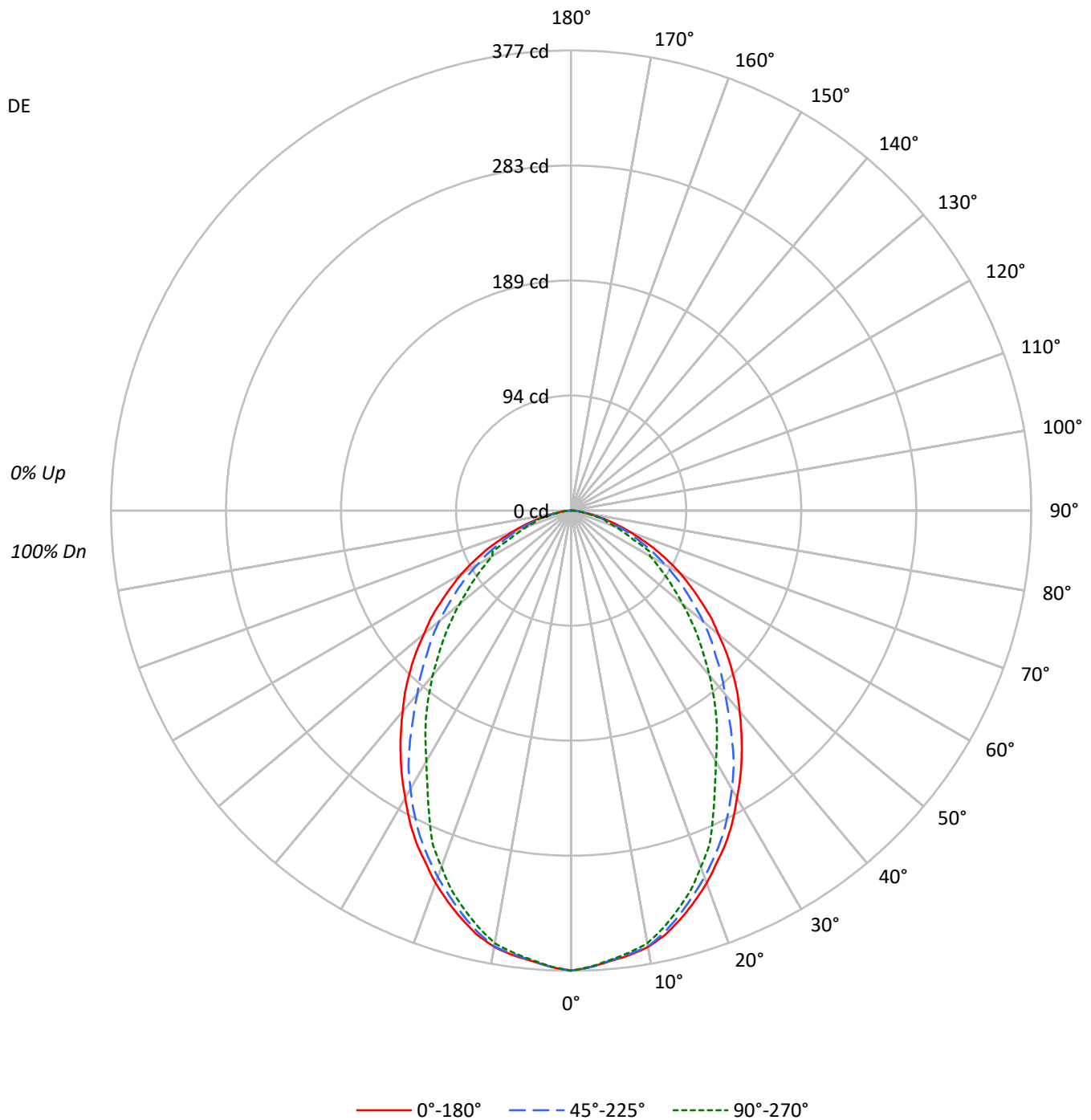
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	4057	4057	4057
5°	4002	3998	3992
10°	3968	3963	3935
15°	3860	3822	3769
20°	3719	3659	3559
25°	3565	3488	3271
30°	3379	3271	2947
35°	3201	3024	2725
40°	3018	2755	2480
45°	2845	2547	2242
50°	2634	2364	1999
55°	2438	2143	1790
60°	2232	1914	1604
65°	1964	1676	1421
70°	1618	1467	1205
75°	1285	1123	1177
80°	862	812	756
85°	543	642	753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2845 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	4.7
10°-20°	96.3	13.0
20°-30°	133.3	18.0
30°-40°	142.2	19.2
40°-50°	129.7	17.5
50°-60°	101.6	13.7
60°-70°	66.2	8.9
70°-80°	29.3	4.0
80°-90°	6.3	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°	264.7	35.8
0°-40°	406.9	55.0
0°-60°	638.1	86.2
0°-90°	740.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	740.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	377	377	377	377	377	
5°	370	370	370	370	370	35
15°	346	346	343	340	338	97
25°	300	298	294	283	275	138
35°	244	242	230	213	207	152
45°	187	183	167	153	147	144
55°	130	126	114	101	95	116
65°	77	73	66	67	56	76
75°	31	29	27	26	28	33
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	376.9	376.9	376.9	376.9	376.9
2.5°	374.3	374.3	374.3	373.9	373.9
5°	370.4	370.0	370.0	369.5	369.5
7.5°	367.4	366.9	366.5	366.1	365.2
10°	363.0	363.0	362.6	360.4	360.0
12.5°	356.0	355.6	353.8	350.8	349.9
15°	346.4	346.4	343.0	339.5	338.2
17.5°	336.0	335.5	331.2	327.7	326.0
20°	324.7	323.8	319.4	313.8	310.7
22.5°	312.0	312.0	306.8	299.4	296.3
25°	300.2	298.5	293.7	283.3	275.4
27.5°	286.7	284.1	278.9	264.1	254.9
30°	271.9	270.6	263.2	244.0	237.1
32.5°	258.0	255.8	248.0	227.9	222.2
35°	243.6	241.9	230.1	212.7	207.4
37.5°	229.2	227.0	212.2	198.3	191.7
40°	214.8	212.2	196.1	183.5	176.5
42.5°	201.3	197.8	182.2	168.6	160.8
45°	186.9	183.0	167.3	153.4	147.3
47.5°	172.6	169.1	154.7	140.3	133.3
50°	157.3	154.3	141.2	126.8	119.4
52.5°	144.7	139.9	127.2	112.9	106.8
55°	129.9	125.9	114.2	100.7	95.4
57.5°	116.4	112.4	101.5	88.9	84.5
60°	103.7	98.0	88.9	78.0	74.5
62.5°	89.8	85.4	77.6	68.4	72.8
65°	77.1	72.8	65.8	67.1	55.8
67.5°	63.2	61.0	54.9	48.8	47.1
70°	51.4	48.8	46.6	40.1	38.3
72.5°	41.0	38.3	35.3	31.8	30.5
75°	30.9	28.8	27.0	25.7	28.3
77.5°	21.4	20.5	19.2	17.9	17.4
80°	13.9	13.5	13.1	12.6	12.2
82.5°	8.3	8.3	8.3	8.3	8.3
85°	4.4	4.8	5.2	5.7	6.1
87.5°	2.6	2.6	3.1	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)