

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: P558838

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558838
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-35-UNV-80-87-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 617.0 lumens
Efficiency: N/A
Efficacy: 74.3 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

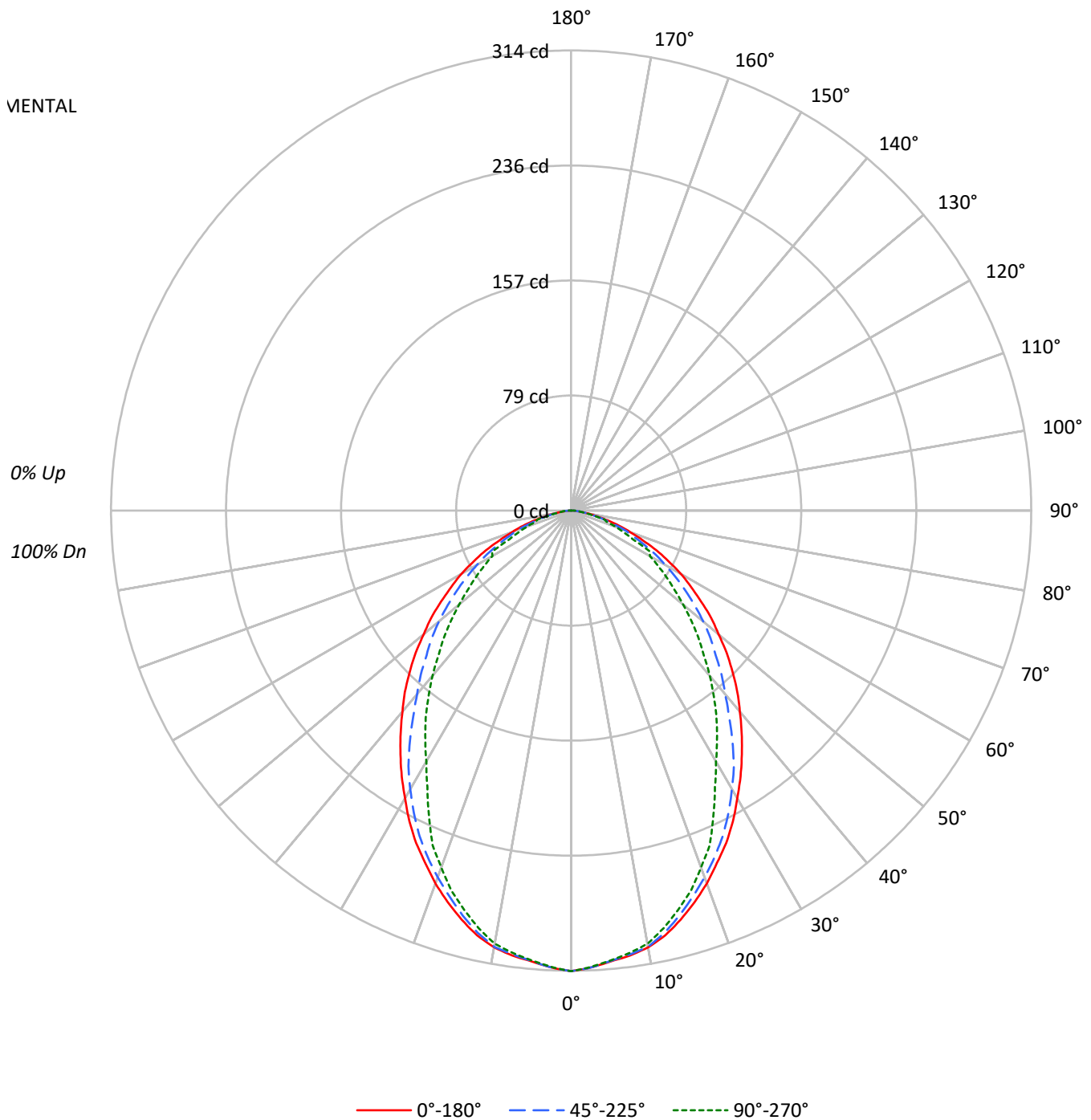
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3383	3383	3383
5°	3337	3333	3329
10°	3309	3304	3280
15°	3219	3187	3143
20°	3101	3050	2968
25°	2973	2909	2727
30°	2818	2728	2457
35°	2669	2520	2273
40°	2517	2297	2068
45°	2373	2124	1869
50°	2197	1971	1668
55°	2032	1787	1494
60°	1862	1595	1337
65°	1638	1398	1184
70°	1350	1224	1007
75°	1073	936	981
80°	719	676	632
85°	445	543	630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2373 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	4.7
10°-20°	80.3	13.0
20°-30°	111.2	18.0
30°-40°	118.5	19.2
40°-50°	108.1	17.5
50°-60°	84.7	13.7
60°-70°	55.2	8.9
70°-80°	24.5	4.0
80°-90°	5.3	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°	220.7	35.8
0°-40°	339.2	55.0
0°-60°	532.1	86.2
0°-90°	617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	617.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	314	314	314	314	314	
5°	309	308	308	308	308	29
15°	289	289	286	283	282	81
25°	250	249	245	236	230	115
35°	203	202	192	177	173	127
45°	156	153	140	128	123	120
55°	108	105	95	84	80	97
65°	64	61	55	56	46	63
75°	26	24	22	21	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	314.3	314.3	314.3	314.3	314.3
2.5°	312.1	312.1	312.1	311.7	311.7
5°	308.8	308.5	308.5	308.1	308.1
7.5°	306.3	305.9	305.6	305.2	304.5
10°	302.7	302.7	302.3	300.5	300.1
12.5°	296.9	296.5	295.0	292.5	291.8
15°	288.9	288.9	286.0	283.0	282.0
17.5°	280.1	279.8	276.1	273.2	271.8
20°	270.7	270.0	266.3	261.6	259.1
22.5°	260.2	260.2	255.8	249.6	247.1
25°	250.3	248.9	244.9	236.2	229.6
27.5°	239.1	236.9	232.5	220.2	212.6
30°	226.7	225.6	219.5	203.5	197.7
32.5°	215.1	213.3	206.7	190.0	185.3
35°	203.1	201.7	191.8	177.3	173.0
37.5°	191.1	189.3	176.9	165.3	159.9
40°	179.1	176.9	163.5	153.0	147.2
42.5°	167.9	165.0	151.9	140.6	134.1
45°	155.9	152.6	139.5	127.9	122.8
47.5°	143.9	141.0	129.0	117.0	111.2
50°	131.2	128.6	117.7	105.7	99.6
52.5°	120.6	116.6	106.1	94.1	89.0
55°	108.3	105.0	95.2	83.9	79.6
57.5°	97.0	93.7	84.7	74.1	70.5
60°	86.5	81.8	74.1	65.0	62.1
62.5°	74.8	71.2	64.7	57.0	60.7
65°	64.3	60.7	54.9	56.0	46.5
67.5°	52.7	50.9	45.8	40.7	39.2
70°	42.9	40.7	38.9	33.4	32.0
72.5°	34.2	32.0	29.4	26.5	25.4
75°	25.8	24.0	22.5	21.4	23.6
77.5°	17.8	17.1	16.0	14.9	14.5
80°	11.6	11.3	10.9	10.5	10.2
82.5°	6.9	6.9	6.9	6.9	6.9
85°	3.6	4.0	4.4	4.7	5.1
87.5°	2.2	2.2	2.5	2.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)