

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: P559272

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-93-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559272
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-35-UNV-93-88-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 832.0 lumens
Efficiency: N/A
Efficacy: 71.1 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

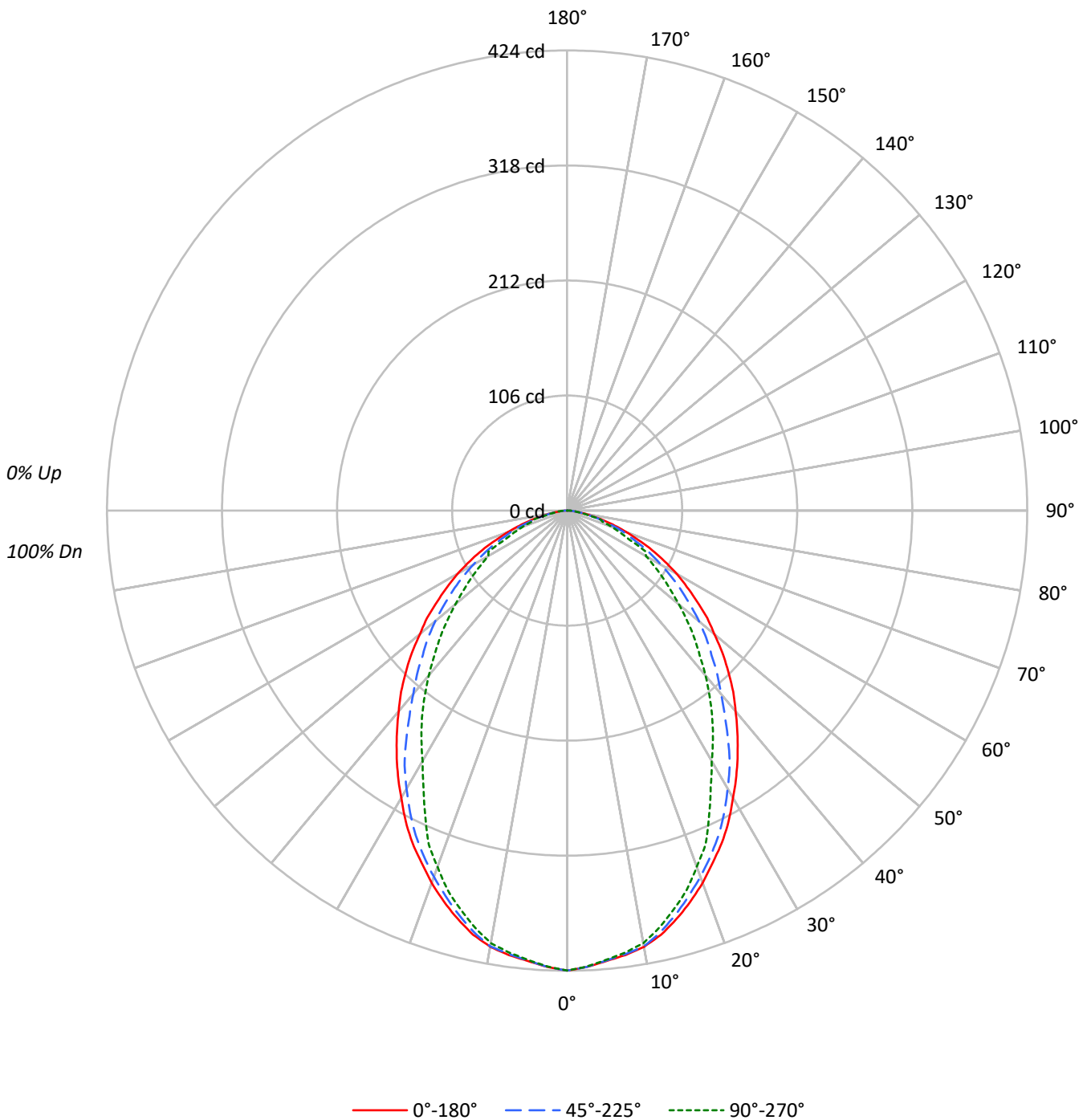
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4562	4562	4562
5°	4500	4495	4489
10°	4461	4455	4423
15°	4340	4297	4237
20°	4181	4113	4001
25°	4010	3922	3678
30°	3800	3678	3312
35°	3599	3399	3064
40°	3393	3098	2788
45°	3200	2863	2521
50°	2962	2658	2247
55°	2740	2410	2014
60°	2510	2153	1804
65°	2208	1885	1597
70°	1819	1649	1356
75°	1447	1264	1323
80°	973	911	849
85°	605	729	852

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3200 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.5	4.7
10°-20°	108.3	13.0
20°-30°	149.9	18.0
30°-40°	159.8	19.2
40°-50°	145.8	17.5
50°-60°	114.2	13.7
60°-70°	74.4	8.9
70°-80°	33.0	4.0
80°-90°	7.1	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°	297.6	35.8
0°-40°	457.4	55.0
0°-60°	717.5	86.2
0°-90°	832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	416	416	416	416	416	40
15°	390	390	386	382	380	110
25°	338	336	330	318	310	155
35°	274	272	259	239	233	171
45°	210	206	188	172	166	162
55°	146	142	128	113	107	131
65°	87	82	74	76	63	85
75°	35	32	30	29	32	37
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	423.8	423.8	423.8	423.8	423.8
2.5°	420.9	420.9	420.9	420.4	420.4
5°	416.5	416.0	416.0	415.5	415.5
7.5°	413.0	412.5	412.1	411.6	410.6
10°	408.1	408.1	407.6	405.2	404.7
12.5°	400.3	399.8	397.8	394.4	393.4
15°	389.5	389.5	385.6	381.7	380.2
17.5°	377.8	377.3	372.4	368.4	366.5
20°	365.0	364.0	359.1	352.8	349.3
22.5°	350.8	350.8	344.9	336.6	333.2
25°	337.6	335.6	330.2	318.5	309.7
27.5°	322.4	319.4	313.6	296.9	286.6
30°	305.7	304.3	295.9	274.4	266.5
32.5°	290.1	287.6	278.8	256.2	249.9
35°	273.9	271.9	258.7	239.1	233.2
37.5°	257.7	255.3	238.6	222.9	215.6
40°	241.5	238.6	220.5	206.3	198.4
42.5°	226.4	222.4	204.8	189.6	180.8
45°	210.2	205.8	188.1	172.5	165.6
47.5°	194.0	190.1	173.9	157.8	149.9
50°	176.9	173.4	158.7	142.6	134.2
52.5°	162.7	157.3	143.1	126.9	120.0
55°	146.0	141.6	128.4	113.2	107.3
57.5°	130.8	126.4	114.2	100.0	95.1
60°	116.6	110.2	100.0	87.7	83.8
62.5°	100.9	96.0	87.2	76.9	81.8
65°	86.7	81.8	74.0	75.5	62.7
67.5°	71.0	68.6	61.7	54.9	52.9
70°	57.8	54.9	52.4	45.1	43.1
72.5°	46.1	43.1	39.7	35.8	34.3
75°	34.8	32.3	30.4	28.9	31.8
77.5°	24.0	23.0	21.6	20.1	19.6
80°	15.7	15.2	14.7	14.2	13.7
82.5°	9.3	9.3	9.3	9.3	9.3
85°	4.9	5.4	5.9	6.4	6.9
87.5°	2.9	2.9	3.4	3.9	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)