

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: P558498

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558498
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-LD4-1HI-35-UNV-93-85-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 793.0 lumens
Efficiency: N/A
Efficacy: 73.4 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

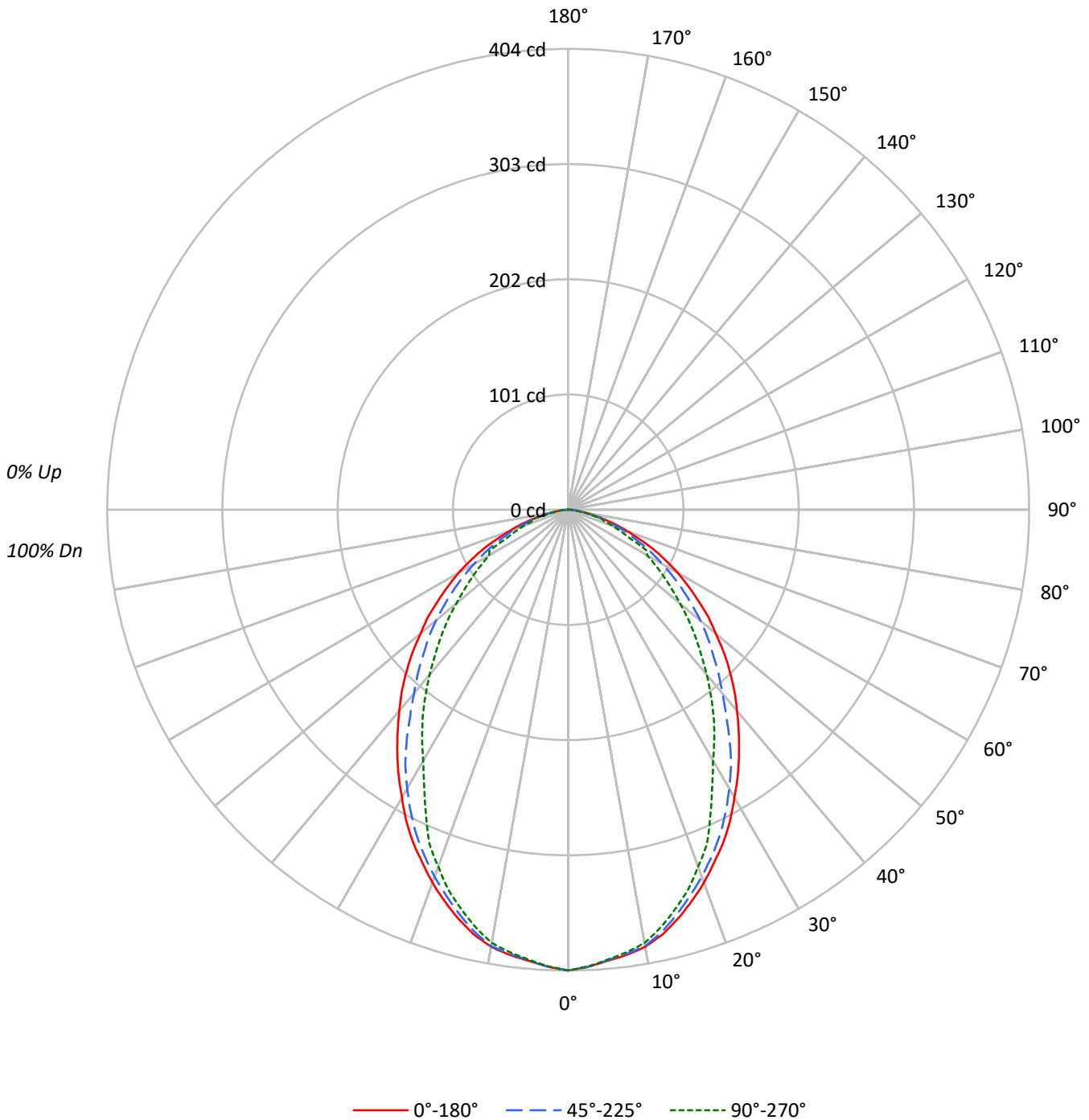
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	4348	4348	4348
5°	4289	4284	4279
10°	4252	4246	4216
15°	4138	4095	4038
20°	3985	3921	3814
25°	3822	3738	3505
30°	3622	3506	3157
35°	3430	3240	2921
40°	3235	2952	2657
45°	3049	2729	2402
50°	2823	2534	2143
55°	2612	2297	1920
60°	2392	2052	1720
65°	2106	1796	1523
70°	1734	1574	1293
75°	1381	1206	1264
80°	924	868	812
85°	580	692	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3049 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.6	4.7
10°-20°	103.2	13.0
20°-30°	142.9	18.0
30°-40°	152.3	19.2
40°-50°	139.0	17.5
50°-60°	108.9	13.7
60°-70°	71.0	8.9
70°-80°	31.4	4.0
80°-90°	6.8	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°	283.7	35.8
0°-40°	436.0	55.0
0°-60°	683.9	86.2
0°-90°	793.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	793.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	397	396	396	396	396	38
15°	371	371	368	364	362	104
25°	322	320	315	304	295	148
35°	261	259	247	228	222	163
45°	200	196	179	164	158	154
55°	139	135	122	108	102	125
65°	83	78	70	72	60	81
75°	33	31	29	28	30	36
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°	403.9	403.9	403.9	403.9	403.9
2.5°	401.1	401.1	401.1	400.7	400.7
5°	396.9	396.5	396.5	396.0	396.0
7.5°	393.7	393.2	392.7	392.3	391.3
10°	389.0	389.0	388.5	386.2	385.7
12.5°	381.5	381.1	379.2	375.9	375.0
15°	371.3	371.3	367.5	363.8	362.4
17.5°	360.0	359.6	354.9	351.2	349.3
20°	347.9	347.0	342.3	336.2	333.0
22.5°	334.4	334.4	328.8	320.8	317.6
25°	321.8	319.9	314.7	303.5	295.1
27.5°	307.3	304.5	298.9	283.0	273.2
30°	291.4	290.0	282.1	261.5	254.0
32.5°	276.5	274.1	265.7	244.2	238.2
35°	261.0	259.2	246.6	227.9	222.3
37.5°	245.6	243.3	227.4	212.5	205.5
40°	230.2	227.4	210.1	196.6	189.1
42.5°	215.7	212.0	195.2	180.7	172.3
45°	200.3	196.1	179.3	164.4	157.8
47.5°	184.9	181.2	165.8	150.4	142.9
50°	168.6	165.3	151.3	135.9	128.0
52.5°	155.0	149.9	136.4	120.9	114.4
55°	139.2	135.0	122.4	107.9	102.3
57.5°	124.7	120.5	108.8	95.3	90.6
60°	111.1	105.1	95.3	83.6	79.9
62.5°	96.2	91.5	83.1	73.3	78.0
65°	82.7	78.0	70.5	71.9	59.8
67.5°	67.7	65.4	58.8	52.3	50.4
70°	55.1	52.3	50.0	43.0	41.1
72.5°	43.9	41.1	37.8	34.1	32.7
75°	33.2	30.8	29.0	27.6	30.4
77.5°	22.9	21.9	20.5	19.1	18.7
80°	14.9	14.5	14.0	13.5	13.1
82.5°	8.9	8.9	8.9	8.9	8.9
85°	4.7	5.1	5.6	6.1	6.5
87.5°	2.8	2.8	3.3	3.7	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)