

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: P558604

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-81-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558604
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-50-UNV-81-96-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 812.0 lumens
Efficiency: N/A
Efficacy: 75.2 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

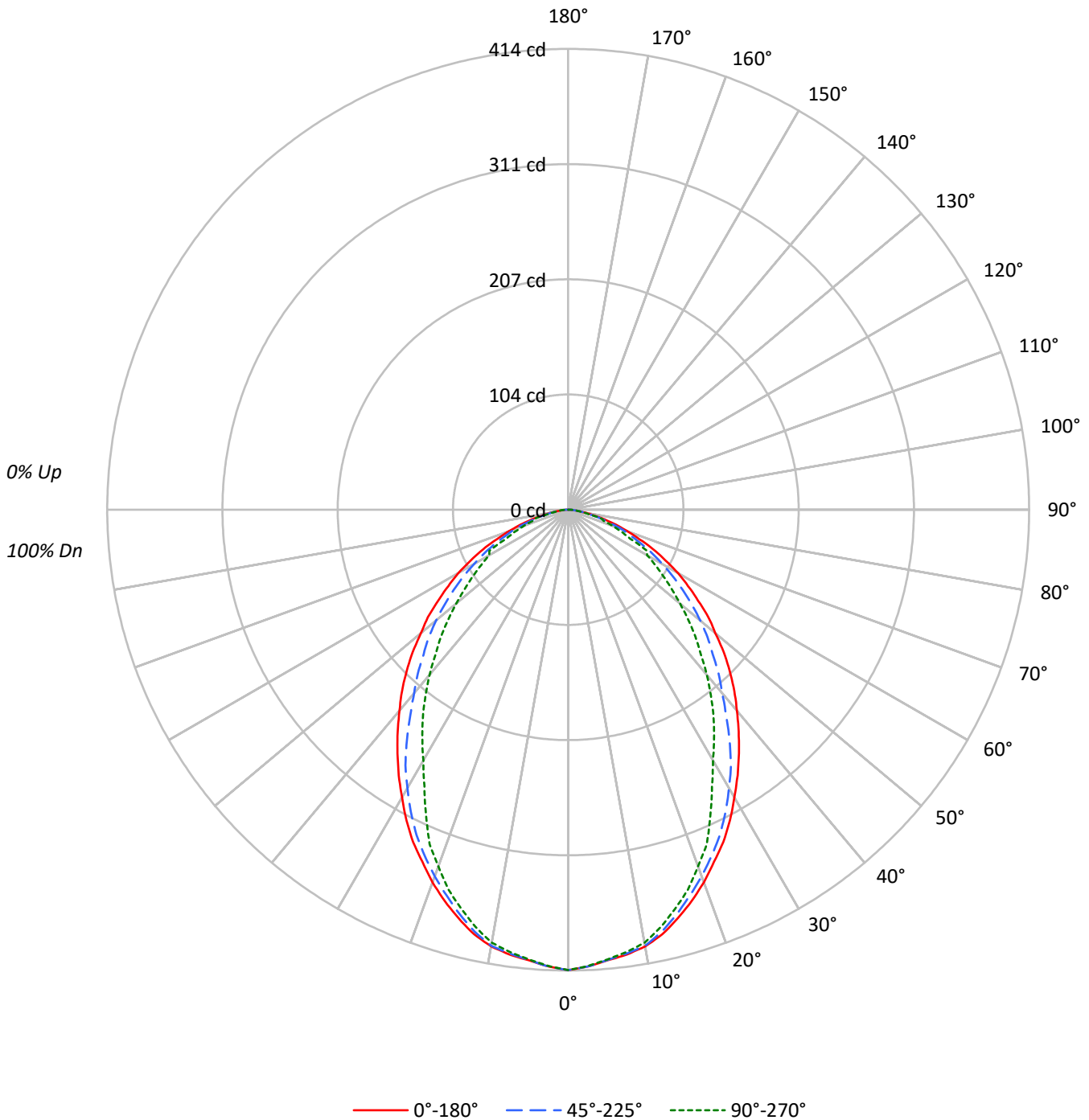
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4452	4452	4452
5°	4391	4387	4381
10°	4353	4348	4317
15°	4236	4193	4135
20°	4080	4015	3905
25°	3913	3828	3589
30°	3709	3590	3233
35°	3512	3318	2991
40°	3312	3024	2722
45°	3122	2795	2460
50°	2890	2594	2194
55°	2674	2351	1965
60°	2450	2099	1761
65°	2155	1839	1559
70°	1775	1611	1325
75°	1414	1231	1293
80°	948	886	831
85°	593	704	827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3122 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	4.7
10°-20°	105.7	13.0
20°-30°	146.3	18.0
30°-40°	156.0	19.2
40°-50°	142.3	17.5
50°-60°	111.5	13.7
60°-70°	72.7	8.9
70°-80°	32.2	4.0
80°-90°	6.9	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°	290.5	35.8
0°-40°	446.4	55.0
0°-60°	700.2	86.2
0°-90°	812.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	812.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	406	406	406	406	406	39
15°	380	380	376	372	371	107
25°	330	328	322	311	302	151
35°	267	265	252	233	228	167
45°	205	201	184	168	162	158
55°	142	138	125	110	105	128
65°	85	80	72	74	61	83
75°	34	32	30	28	31	36
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°	413.6	413.6	413.6	413.6	413.6
2.5°	410.8	410.8	410.8	410.3	410.3
5°	406.4	406.0	406.0	405.5	405.5
7.5°	403.1	402.6	402.1	401.7	400.7
10°	398.3	398.3	397.8	395.5	395.0
12.5°	390.7	390.2	388.3	384.9	384.0
15°	380.1	380.1	376.3	372.5	371.1
17.5°	368.7	368.2	363.4	359.6	357.7
20°	356.2	355.3	350.5	344.3	340.9
22.5°	342.4	342.4	336.6	328.5	325.2
25°	329.5	327.6	322.3	310.8	302.2
27.5°	314.6	311.8	306.0	289.8	279.7
30°	298.4	296.9	288.8	267.8	260.1
32.5°	283.1	280.7	272.1	250.1	243.9
35°	267.3	265.4	252.5	233.3	227.6
37.5°	251.5	249.1	232.9	217.6	210.4
40°	235.7	232.9	215.2	201.3	193.7
42.5°	220.9	217.1	199.9	185.1	176.4
45°	205.1	200.8	183.6	168.3	161.6
47.5°	189.4	185.5	169.8	154.0	146.3
50°	172.6	169.3	154.9	139.1	131.0
52.5°	158.8	153.5	139.6	123.8	117.2
55°	142.5	138.2	125.3	110.5	104.7
57.5°	127.7	123.4	111.4	97.5	92.8
60°	113.8	107.6	97.5	85.6	81.8
62.5°	98.5	93.7	85.1	75.1	79.9
65°	84.6	79.9	72.2	73.6	61.2
67.5°	69.3	66.9	60.3	53.6	51.6
70°	56.4	53.6	51.2	44.0	42.1
72.5°	44.9	42.1	38.7	34.9	33.5
75°	34.0	31.6	29.6	28.2	31.1
77.5°	23.4	22.5	21.0	19.6	19.1
80°	15.3	14.8	14.3	13.9	13.4
82.5°	9.1	9.1	9.1	9.1	9.1
85°	4.8	5.3	5.7	6.2	6.7
87.5°	2.9	2.9	3.3	3.8	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)