

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: P558506

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558506
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-93-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

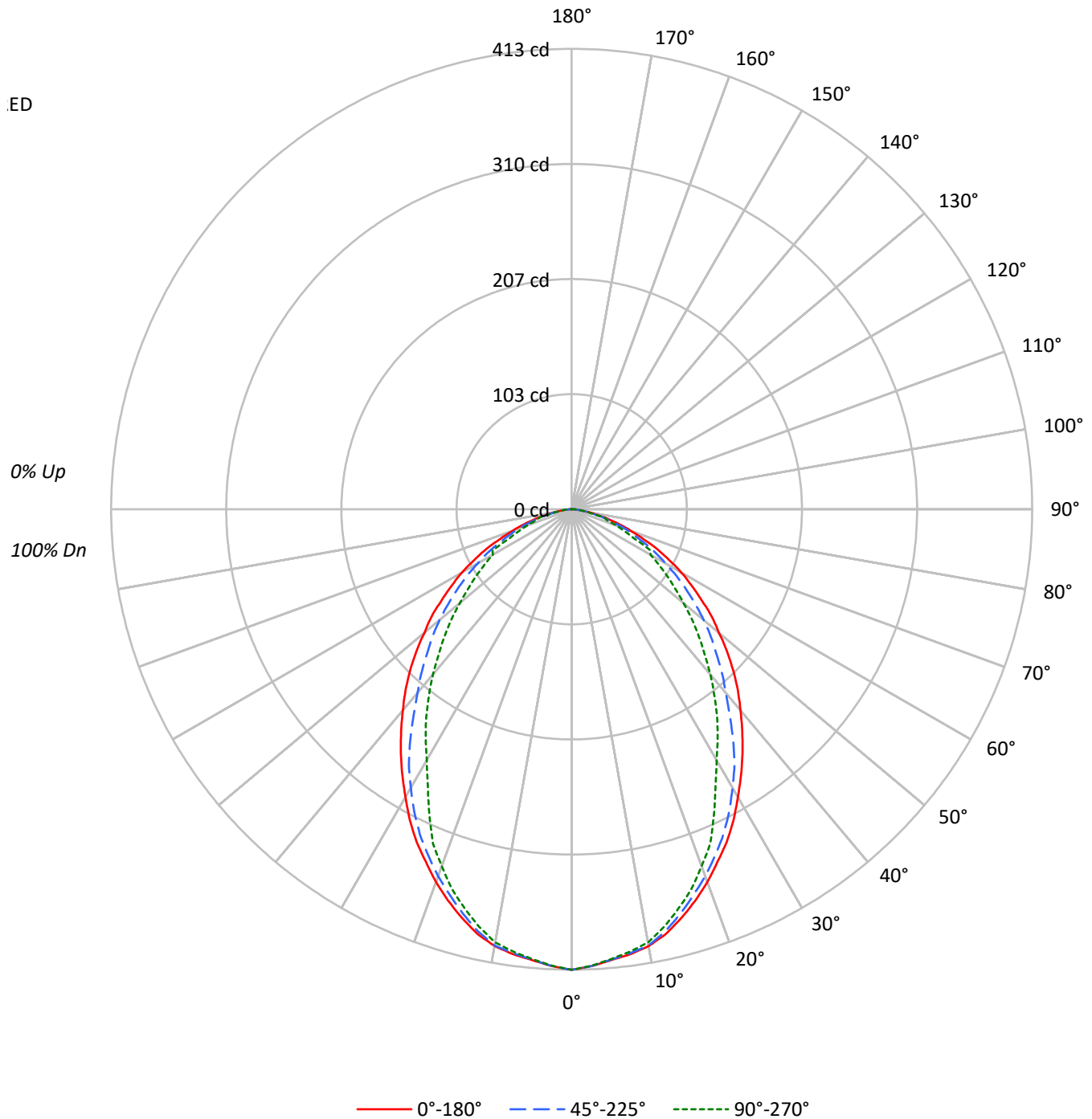
Lumens per Lamp: N/A
Luminaire Lumens: 811.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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°	4447	4447	4447
5°	4386	4381	4376
10°	4348	4344	4312
15°	4231	4189	4130
20°	4076	4010	3900
25°	3909	3823	3584
30°	3704	3586	3229
35°	3508	3314	2987
40°	3309	3020	2718
45°	3119	2792	2457
50°	2887	2591	2192
55°	2670	2348	1963
60°	2448	2097	1759
65°	2152	1836	1556
70°	1775	1608	1322
75°	1410	1231	1289
80°	948	886	831
85°	593	704	827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3119 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	4.7
10°-20°	105.5	13.0
20°-30°	146.1	18.0
30°-40°	155.8	19.2
40°-50°	142.1	17.5
50°-60°	111.3	13.7
60°-70°	72.6	8.9
70°-80°	32.1	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°	290.1	35.8
0°-40°	445.9	55.0
0°-60°	699.4	86.2
0°-90°	811.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	811.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	413	413	413	413	413	
5°	406	406	406	405	405	39
15°	380	380	376	372	371	107
25°	329	327	322	310	302	151
35°	267	265	252	233	227	167
45°	205	201	183	168	161	158
55°	142	138	125	110	105	128
65°	84	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°	413.1	413.1	413.1	413.1	413.1
2.5°	410.2	410.2	410.2	409.8	409.8
5°	405.9	405.5	405.5	405.0	405.0
7.5°	402.6	402.1	401.7	401.2	400.2
10°	397.8	397.8	397.4	395.0	394.5
12.5°	390.2	389.7	387.8	384.5	383.5
15°	379.7	379.7	375.9	372.0	370.6
17.5°	368.2	367.7	363.0	359.1	357.2
20°	355.8	354.8	350.1	343.9	340.5
22.5°	342.0	342.0	336.2	328.1	324.8
25°	329.1	327.1	321.9	310.4	301.8
27.5°	314.3	311.4	305.7	289.4	279.4
30°	298.0	296.6	288.5	267.4	259.8
32.5°	282.7	280.3	271.7	249.8	243.6
35°	267.0	265.1	252.2	233.1	227.3
37.5°	251.2	248.8	232.6	217.3	210.1
40°	235.5	232.6	214.9	201.1	193.4
42.5°	220.6	216.8	199.6	184.8	176.2
45°	204.9	200.6	183.4	168.1	161.4
47.5°	189.1	185.3	169.5	153.8	146.1
50°	172.4	169.1	154.7	139.0	130.9
52.5°	158.6	153.3	139.5	123.7	117.0
55°	142.3	138.0	125.1	110.3	104.6
57.5°	127.5	123.2	111.3	97.4	92.7
60°	113.7	107.5	97.4	85.5	81.7
62.5°	98.4	93.6	85.0	75.0	79.8
65°	84.5	79.8	72.1	73.5	61.1
67.5°	69.3	66.9	60.2	53.5	51.6
70°	56.4	53.5	51.1	43.9	42.0
72.5°	44.9	42.0	38.7	34.9	33.4
75°	33.9	31.5	29.6	28.2	31.0
77.5°	23.4	22.4	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)