

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: P559121

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559121
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-LD4-2HI-40-UNV-82-84-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1813.0 lumens
Efficiency: N/A
Efficacy: 83.9 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

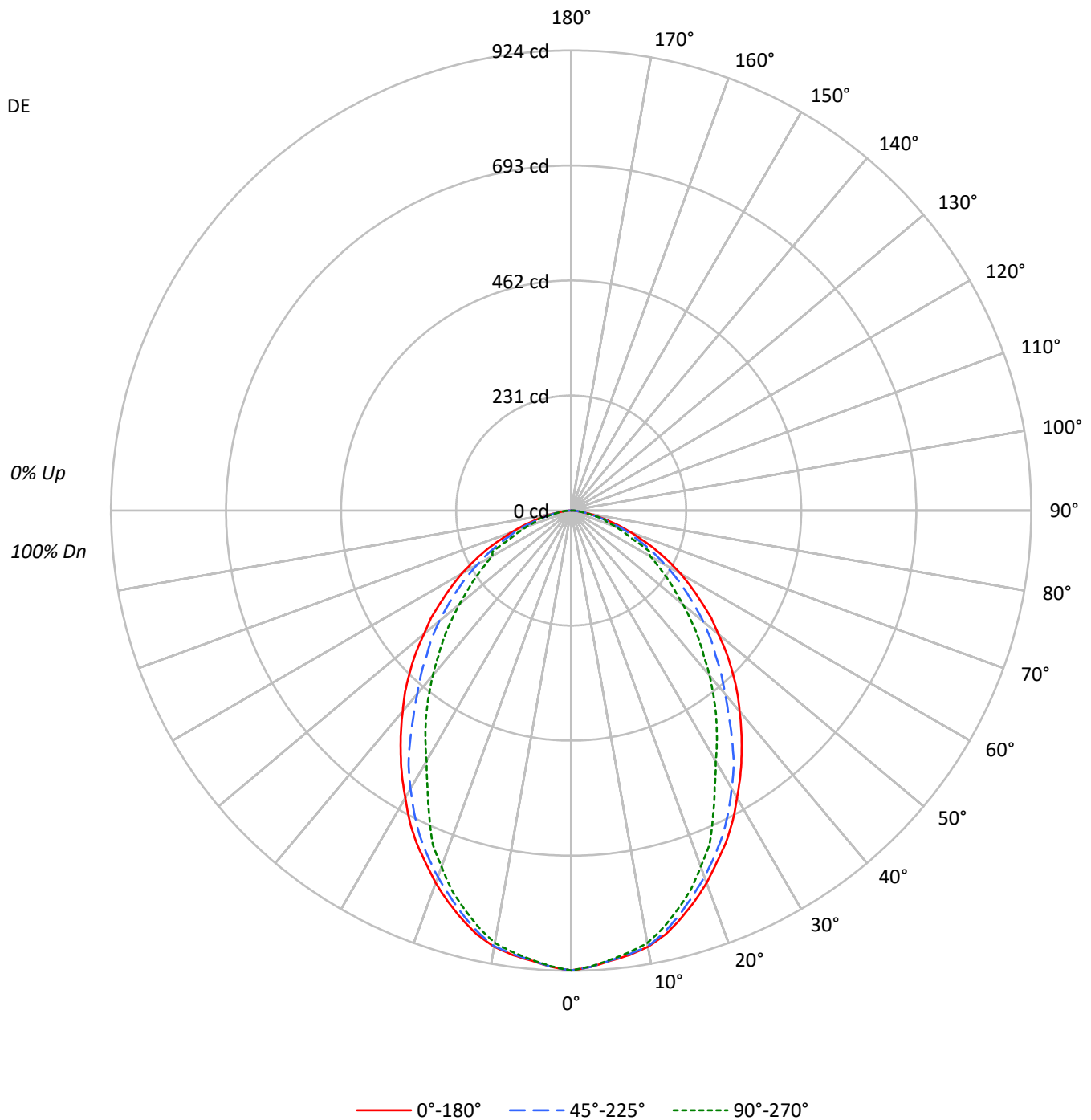
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	9940	9940	9940
5°	9806	9794	9783
10°	9721	9709	9639
15°	9459	9363	9232
20°	9111	8964	8719
25°	8736	8546	8014
30°	8280	8016	7219
35°	7842	7407	6678
40°	7397	6750	6076
45°	6972	6241	5494
50°	6454	5792	4898
55°	5971	5249	4388
60°	5470	4689	3931
65°	4814	4106	3482
70°	3965	3594	2958
75°	3152	2753	2886
80°	2120	1984	1853
85°	1321	1581	1840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6972 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.0	4.7
10°-20°	235.9	13.0
20°-30°	326.6	18.0
30°-40°	348.3	19.2
40°-50°	317.7	17.5
50°-60°	248.9	13.7
60°-70°	162.2	8.9
70°-80°	71.9	4.0
80°-90°	15.4	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°	648.5	35.8
0°-40°	996.8	55.0
0°-60°	1563.5	86.2
0°-90°	1813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1813.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	908	906	906	905	905	86
15°	849	849	840	832	828	239
25°	736	731	720	694	675	338
35°	597	592	564	521	508	373
45°	458	448	410	376	361	353
55°	318	309	280	247	234	285
65°	189	178	161	164	137	186
75°	76	70	66	63	69	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	923.5	923.5	923.5	923.5	923.5
2.5°	917.1	917.1	917.1	916.0	916.0
5°	907.5	906.4	906.4	905.4	905.4
7.5°	900.0	899.0	897.9	896.8	894.7
10°	889.4	889.4	888.3	882.9	881.9
12.5°	872.3	871.2	866.9	859.5	857.3
15°	848.8	848.8	840.2	831.7	828.5
17.5°	823.2	822.1	811.4	802.9	798.6
20°	795.4	793.3	782.6	768.7	761.2
22.5°	764.4	764.4	751.6	733.5	726.0
25°	735.6	731.3	719.6	694.0	674.8
27.5°	702.5	696.1	683.3	647.0	624.6
30°	666.2	663.0	644.9	597.9	580.8
32.5°	632.0	626.7	607.5	558.4	544.5
35°	596.8	592.5	563.7	521.0	508.2
37.5°	561.6	556.2	519.9	485.8	469.8
40°	526.4	519.9	480.4	449.5	432.4
42.5°	493.3	484.7	446.3	413.2	394.0
45°	458.0	448.4	410.0	375.8	360.9
47.5°	422.8	414.2	379.0	343.8	326.7
50°	385.4	377.9	345.9	310.7	292.5
52.5°	354.5	342.7	311.8	276.5	261.6
55°	318.2	308.6	279.7	246.6	233.8
57.5°	285.1	275.5	248.8	217.8	207.1
60°	254.1	240.2	217.8	191.1	182.6
62.5°	219.9	209.3	190.0	167.6	178.3
65°	189.0	178.3	161.2	164.4	136.7
67.5°	154.8	149.5	134.5	119.6	115.3
70°	126.0	119.6	114.2	98.2	94.0
72.5°	100.4	94.0	86.5	77.9	74.7
75°	75.8	70.5	66.2	63.0	69.4
77.5°	52.3	50.2	47.0	43.8	42.7
80°	34.2	33.1	32.0	31.0	29.9
82.5°	20.3	20.3	20.3	20.3	20.3
85°	10.7	11.7	12.8	13.9	14.9
87.5°	6.4	6.4	7.5	8.5	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)