

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: P560017

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560017
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-12-2-LD4-1STD-35-UNV-82-84-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1419.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

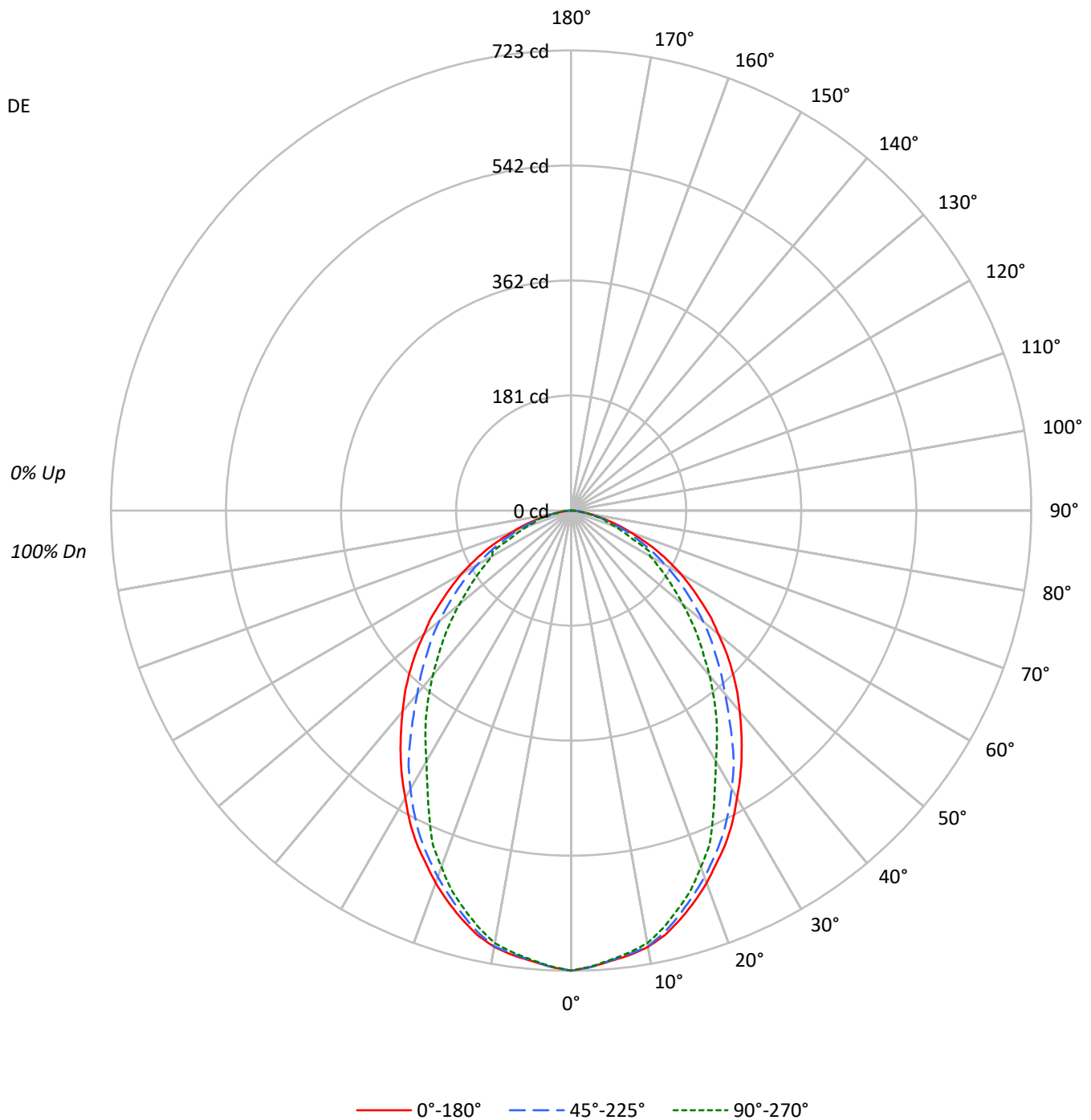
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3890	3890	3890
5°	3837	3833	3828
10°	3804	3799	3772
15°	3701	3664	3613
20°	3565	3508	3412
25°	3419	3344	3136
30°	3240	3136	2825
35°	3069	2899	2614
40°	2895	2642	2377
45°	2729	2442	2149
50°	2526	2267	1917
55°	2336	2054	1717
60°	2141	1835	1538
65°	1883	1607	1363
70°	1552	1407	1157
75°	1233	1077	1129
80°	828	778	725
85°	519	618	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2729 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	4.7
10°-20°	184.7	13.0
20°-30°	255.6	18.0
30°-40°	272.6	19.2
40°-50°	248.7	17.5
50°-60°	194.8	13.7
60°-70°	127.0	8.9
70°-80°	56.3	4.0
80°-90°	12.1	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°	507.6	35.8
0°-40°	780.2	55.0
0°-60°	1223.7	86.2
0°-90°	1419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	723	723	723	723	723	
5°	710	709	709	709	709	67
15°	664	664	658	651	648	187
25°	576	572	563	543	528	264
35°	467	464	441	408	398	292
45°	358	351	321	294	282	276
55°	249	242	219	193	183	223
65°	148	140	126	129	107	146
75°	59	55	52	49	54	64
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	722.8	722.8	722.8	722.8	722.8
2.5°	717.8	717.8	717.8	717.0	717.0
5°	710.3	709.4	709.4	708.6	708.6
7.5°	704.4	703.6	702.8	701.9	700.3
10°	696.1	696.1	695.2	691.1	690.2
12.5°	682.7	681.9	678.5	672.7	671.0
15°	664.3	664.3	657.6	651.0	648.4
17.5°	644.3	643.4	635.1	628.4	625.1
20°	622.5	620.9	612.5	601.7	595.8
22.5°	598.3	598.3	588.3	574.1	568.2
25°	575.7	572.4	563.2	543.2	528.1
27.5°	549.8	544.8	534.8	506.4	488.8
30°	521.4	518.9	504.7	468.0	454.6
32.5°	494.7	490.5	475.5	437.0	426.2
35°	467.1	463.8	441.2	407.8	397.8
37.5°	439.5	435.4	407.0	380.2	367.7
40°	412.0	407.0	376.0	351.8	338.4
42.5°	386.1	379.4	349.3	323.4	308.3
45°	358.5	351.0	320.9	294.1	282.4
47.5°	330.9	324.2	296.6	269.1	255.7
50°	301.7	295.8	270.7	243.2	229.0
52.5°	277.4	268.2	244.0	216.4	204.7
55°	249.0	241.5	218.9	193.0	183.0
57.5°	223.1	215.6	194.7	170.5	162.1
60°	198.9	188.0	170.5	149.6	142.9
62.5°	172.1	163.8	148.7	131.2	139.6
65°	147.9	139.6	126.2	128.7	107.0
67.5°	121.2	117.0	105.3	93.6	90.2
70°	98.6	93.6	89.4	76.9	73.5
72.5°	78.5	73.5	67.7	61.0	58.5
75°	59.3	55.2	51.8	49.3	54.3
77.5°	40.9	39.3	36.8	34.3	33.4
80°	26.7	25.9	25.1	24.2	23.4
82.5°	15.9	15.9	15.9	15.9	15.9
85°	8.4	9.2	10.0	10.9	11.7
87.5°	5.0	5.0	5.8	6.7	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)