

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: P559767

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559767
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-LD4-1HI-50-UNV-82-87-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1676.0 lumens
Efficiency: N/A
Efficacy: 77.6 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

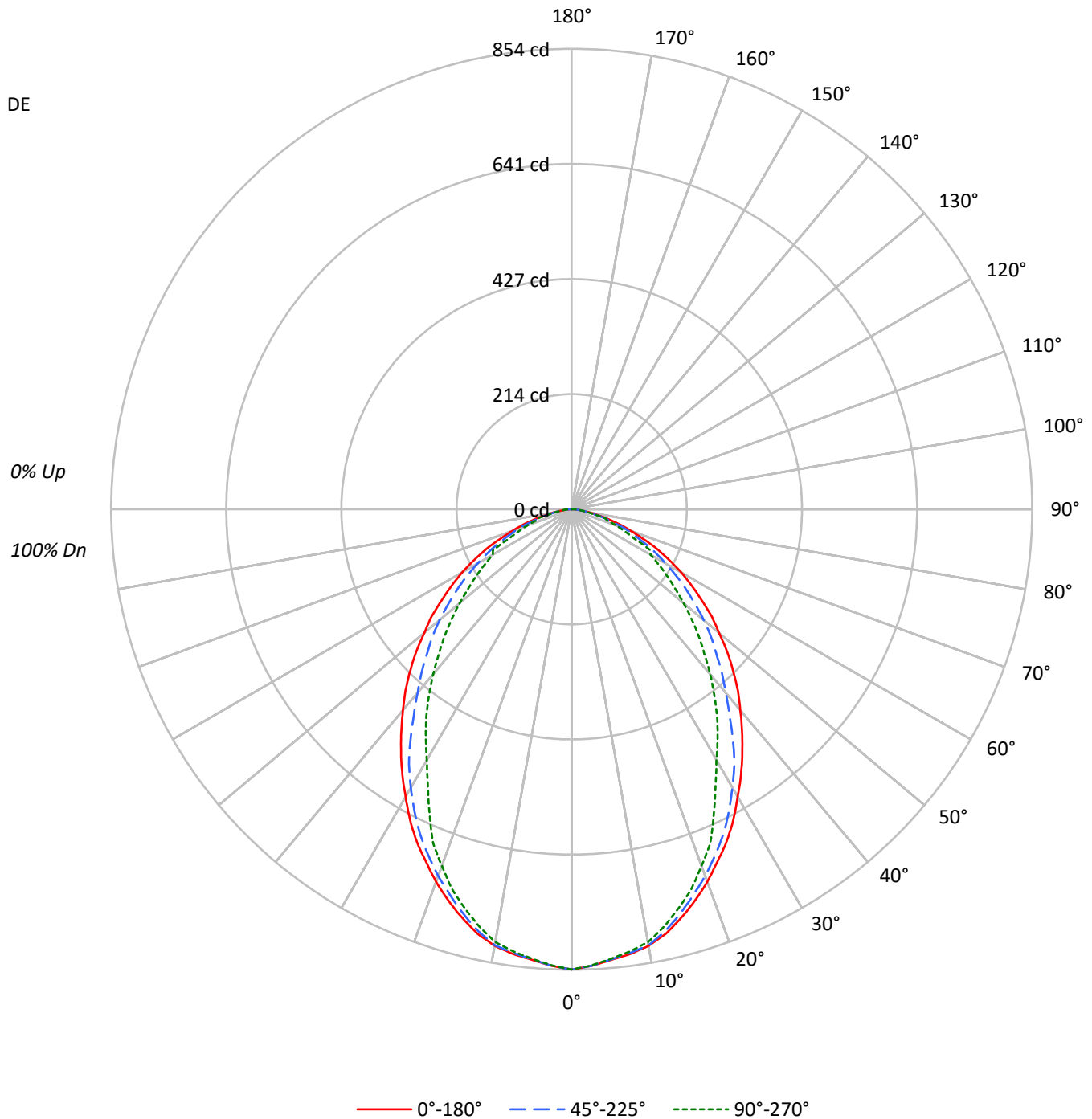
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4595	4595	4595
5°	4532	4527	4522
10°	4493	4488	4455
15°	4372	4328	4267
20°	4211	4144	4030
25°	4038	3950	3704
30°	3828	3704	3337
35°	3625	3424	3087
40°	3419	3120	2808
45°	3223	2885	2539
50°	2983	2678	2264
55°	2760	2426	2028
60°	2528	2167	1817
65°	2225	1897	1608
70°	1833	1662	1367
75°	1458	1273	1335
80°	979	917	855
85°	611	729	852

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3223 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.5	4.7
10°-20°	218.1	13.0
20°-30°	301.9	18.0
30°-40°	322.0	19.2
40°-50°	293.7	17.5
50°-60°	230.1	13.7
60°-70°	150.0	8.9
70°-80°	66.4	4.0
80°-90°	14.3	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°	599.5	35.8
0°-40°	921.5	55.0
0°-60°	1445.3	86.2
0°-90°	1676.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1676.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	839	838	838	837	837	80
15°	785	785	777	769	766	221
25°	680	676	665	642	624	312
35°	552	548	521	482	470	345
45°	423	414	379	347	334	326
55°	294	285	259	228	216	264
65°	175	165	149	152	126	172
75°	70	65	61	58	64	75
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	853.7	853.7	853.7	853.7	853.7
2.5°	847.8	847.8	847.8	846.8	846.8
5°	838.9	837.9	837.9	837.0	837.0
7.5°	832.0	831.0	830.0	829.1	827.1
10°	822.1	822.1	821.2	816.2	815.2
12.5°	806.4	805.4	801.4	794.5	792.5
15°	784.6	784.6	776.7	768.9	765.9
17.5°	761.0	760.0	750.1	742.2	738.3
20°	735.3	733.3	723.5	710.6	703.7
22.5°	706.7	706.7	694.8	678.1	671.1
25°	680.0	676.1	665.2	641.5	623.8
27.5°	649.4	643.5	631.7	598.1	577.4
30°	615.9	612.9	596.1	552.7	536.9
32.5°	584.3	579.4	561.6	516.2	503.4
35°	551.7	547.8	521.1	481.6	469.8
37.5°	519.1	514.2	480.7	449.1	434.3
40°	486.6	480.7	444.1	415.5	399.7
42.5°	456.0	448.1	412.6	382.0	364.2
45°	423.4	414.5	379.0	347.4	333.6
47.5°	390.8	382.9	350.4	317.8	302.0
50°	356.3	349.4	319.8	287.2	270.4
52.5°	327.7	316.8	288.2	255.6	241.8
55°	294.1	285.2	258.6	228.0	216.1
57.5°	263.5	254.6	230.0	201.3	191.5
60°	234.9	222.1	201.3	176.7	168.8
62.5°	203.3	193.4	175.7	155.0	164.8
65°	174.7	164.8	149.0	152.0	126.3
67.5°	143.1	138.2	124.4	110.5	106.6
70°	116.5	110.5	105.6	90.8	86.9
72.5°	92.8	86.9	79.9	72.0	69.1
75°	70.1	65.1	61.2	58.2	64.2
77.5°	48.4	46.4	43.4	40.5	39.5
80°	31.6	30.6	29.6	28.6	27.6
82.5°	18.8	18.8	18.8	18.8	18.8
85°	9.9	10.9	11.8	12.8	13.8
87.5°	5.9	5.9	6.9	7.9	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)