

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: P558534

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-81-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558534
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-40-UNV-81-87-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 730.0 lumens
Efficiency: N/A
Efficacy: 67.6 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

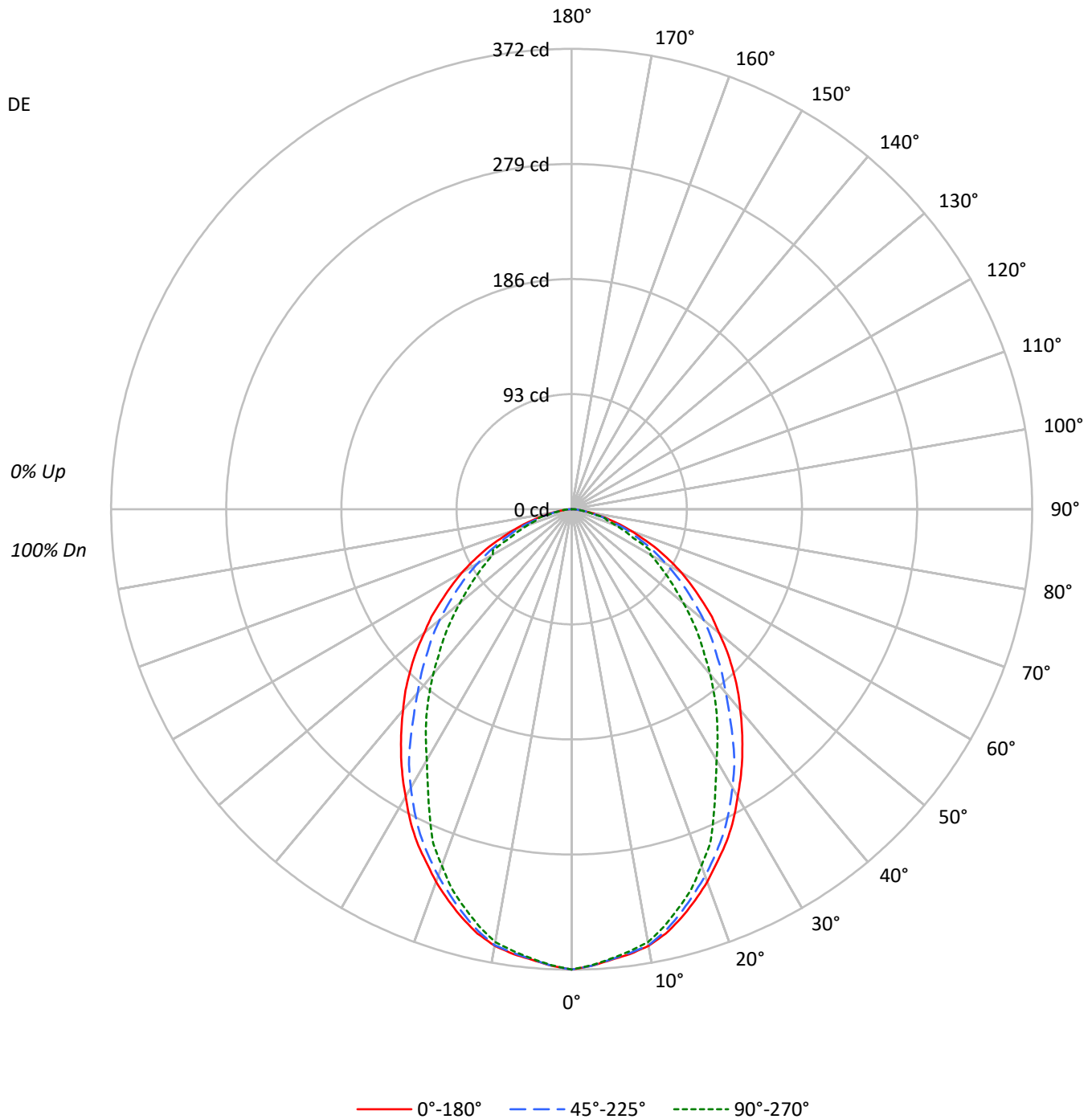
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4003	4003	4003
5°	3948	3944	3938
10°	3914	3910	3881
15°	3809	3770	3718
20°	3669	3609	3511
25°	3518	3441	3227
30°	3333	3228	2907
35°	3158	2983	2689
40°	2977	2718	2446
45°	2807	2513	2212
50°	2599	2333	1973
55°	2404	2113	1766
60°	2202	1888	1582
65°	1938	1653	1401
70°	1596	1448	1190
75°	1268	1110	1160
80°	855	800	744
85°	531	642	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2807 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.6	4.7
10°-20°	95.0	13.0
20°-30°	131.5	18.0
30°-40°	140.2	19.2
40°-50°	127.9	17.5
50°-60°	100.2	13.7
60°-70°	65.3	8.9
70°-80°	28.9	4.0
80°-90°	6.2	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°	261.1	35.8
0°-40°	401.4	55.0
0°-60°	629.5	86.2
0°-90°	730.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	730.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	365	365	365	364	364	35
15°	342	342	338	335	334	96
25°	296	294	290	279	272	136
35°	240	239	227	210	205	150
45°	184	181	165	151	145	142
55°	128	124	113	99	94	115
65°	76	72	65	66	55	75
75°	30	28	27	25	28	33
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	371.9	371.9	371.9	371.9	371.9
2.5°	369.3	369.3	369.3	368.8	368.8
5°	365.4	365.0	365.0	364.5	364.5
7.5°	362.4	362.0	361.5	361.1	360.2
10°	358.1	358.1	357.7	355.5	355.1
12.5°	351.2	350.8	349.1	346.1	345.2
15°	341.8	341.8	338.3	334.9	333.6
17.5°	331.4	331.0	326.7	323.3	321.6
20°	320.3	319.4	315.1	309.5	306.5
22.5°	307.8	307.8	302.6	295.3	292.3
25°	296.2	294.5	289.7	279.4	271.7
27.5°	282.9	280.3	275.1	260.5	251.5
30°	268.2	267.0	259.7	240.7	233.9
32.5°	254.5	252.3	244.6	224.8	219.2
35°	240.3	238.6	227.0	209.8	204.6
37.5°	226.1	224.0	209.4	195.6	189.2
40°	211.9	209.4	193.4	181.0	174.1
42.5°	198.6	195.2	179.7	166.4	158.6
45°	184.4	180.6	165.1	151.3	145.3
47.5°	170.2	166.8	152.6	138.4	131.5
50°	155.2	152.2	139.3	125.1	117.8
52.5°	142.7	138.0	125.5	111.3	105.3
55°	128.1	124.2	112.6	99.3	94.1
57.5°	114.8	110.9	100.2	87.7	83.4
60°	102.3	96.7	87.7	76.9	73.5
62.5°	88.6	84.3	76.5	67.5	71.8
65°	76.1	71.8	64.9	66.2	55.0
67.5°	62.3	60.2	54.2	48.1	46.4
70°	50.7	48.1	46.0	39.5	37.8
72.5°	40.4	37.8	34.8	31.4	30.1
75°	30.5	28.4	26.7	25.4	27.9
77.5°	21.1	20.2	18.9	17.6	17.2
80°	13.8	13.3	12.9	12.5	12.0
82.5°	8.2	8.2	8.2	8.2	8.2
85°	4.3	4.7	5.2	5.6	6.0
87.5°	2.6	2.6	3.0	3.4	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)