

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: P559612

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559612
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-35-UNV-80-96-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1552.0 lumens
Efficiency: N/A
Efficacy: 71.9 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

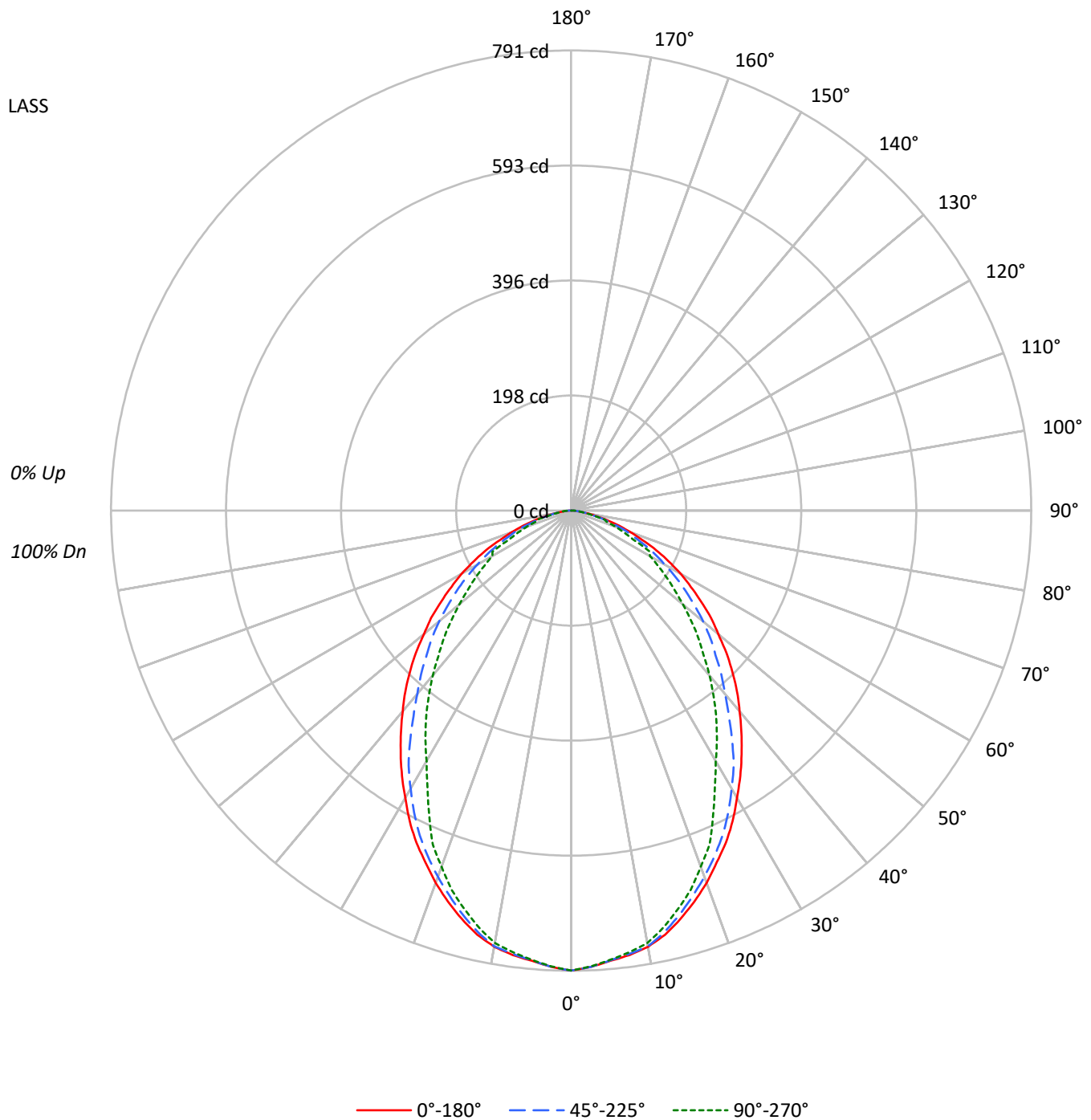
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4255	4255	4255
5°	4197	4192	4187
10°	4160	4156	4126
15°	4048	4008	3952
20°	3900	3837	3732
25°	3739	3658	3430
30°	3544	3430	3090
35°	3357	3171	2858
40°	3166	2890	2601
45°	2984	2672	2351
50°	2762	2479	2097
55°	2556	2247	1879
60°	2341	2006	1682
65°	2060	1757	1490
70°	1696	1539	1265
75°	1350	1179	1235
80°	905	849	793
85°	562	679	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2984 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	4.7
10°-20°	202.0	13.0
20°-30°	279.6	18.0
30°-40°	298.1	19.2
40°-50°	272.0	17.5
50°-60°	213.1	13.7
60°-70°	138.9	8.9
70°-80°	61.5	4.0
80°-90°	13.2	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°	555.2	35.8
0°-40°	853.3	55.0
0°-60°	1338.4	86.2
0°-90°	1552.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1552.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	777	776	776	775	775	74
15°	727	727	719	712	709	204
25°	630	626	616	594	578	289
35°	511	507	483	446	435	319
45°	392	384	351	322	309	302
55°	272	264	240	211	200	244
65°	162	153	138	141	117	159
75°	65	60	57	54	59	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	790.6	790.6	790.6	790.6	790.6
2.5°	785.1	785.1	785.1	784.2	784.2
5°	776.9	775.9	775.9	775.0	775.0
7.5°	770.5	769.5	768.6	767.7	765.9
10°	761.3	761.3	760.4	755.8	754.9
12.5°	746.7	745.8	742.1	735.7	733.9
15°	726.6	726.6	719.3	712.0	709.2
17.5°	704.7	703.7	694.6	687.3	683.6
20°	680.9	679.1	669.9	658.0	651.6
22.5°	654.4	654.4	643.4	627.9	621.5
25°	629.7	626.1	616.0	594.1	577.6
27.5°	601.4	595.9	584.9	553.9	534.7
30°	570.3	567.6	552.0	511.8	497.2
32.5°	541.1	536.5	520.0	478.0	466.1
35°	510.9	507.2	482.6	446.0	435.0
37.5°	480.7	476.2	445.1	415.8	402.1
40°	450.6	445.1	411.3	384.8	370.2
42.5°	422.2	414.9	382.0	353.7	337.2
45°	392.1	383.9	351.0	321.7	308.9
47.5°	361.9	354.6	324.5	294.3	279.7
50°	329.9	323.5	296.1	266.0	250.4
52.5°	303.4	293.4	266.9	236.7	223.9
55°	272.4	264.1	239.5	211.1	200.2
57.5°	244.0	235.8	213.0	186.4	177.3
60°	217.5	205.6	186.4	163.6	156.3
62.5°	188.3	179.1	162.7	143.5	152.6
65°	161.8	152.6	138.0	140.7	117.0
67.5°	132.5	128.0	115.2	102.4	98.7
70°	107.8	102.4	97.8	84.1	80.4
72.5°	85.9	80.4	74.0	66.7	64.0
75°	64.9	60.3	56.7	53.9	59.4
77.5°	44.8	43.0	40.2	37.5	36.6
80°	29.2	28.3	27.4	26.5	25.6
82.5°	17.4	17.4	17.4	17.4	17.4
85°	9.1	10.1	11.0	11.9	12.8
87.5°	5.5	5.5	6.4	7.3	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)