

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: P559086

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-93-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559086
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-35-UNV-93-97-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1547.0 lumens
Efficiency: N/A
Efficacy: 71.6 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

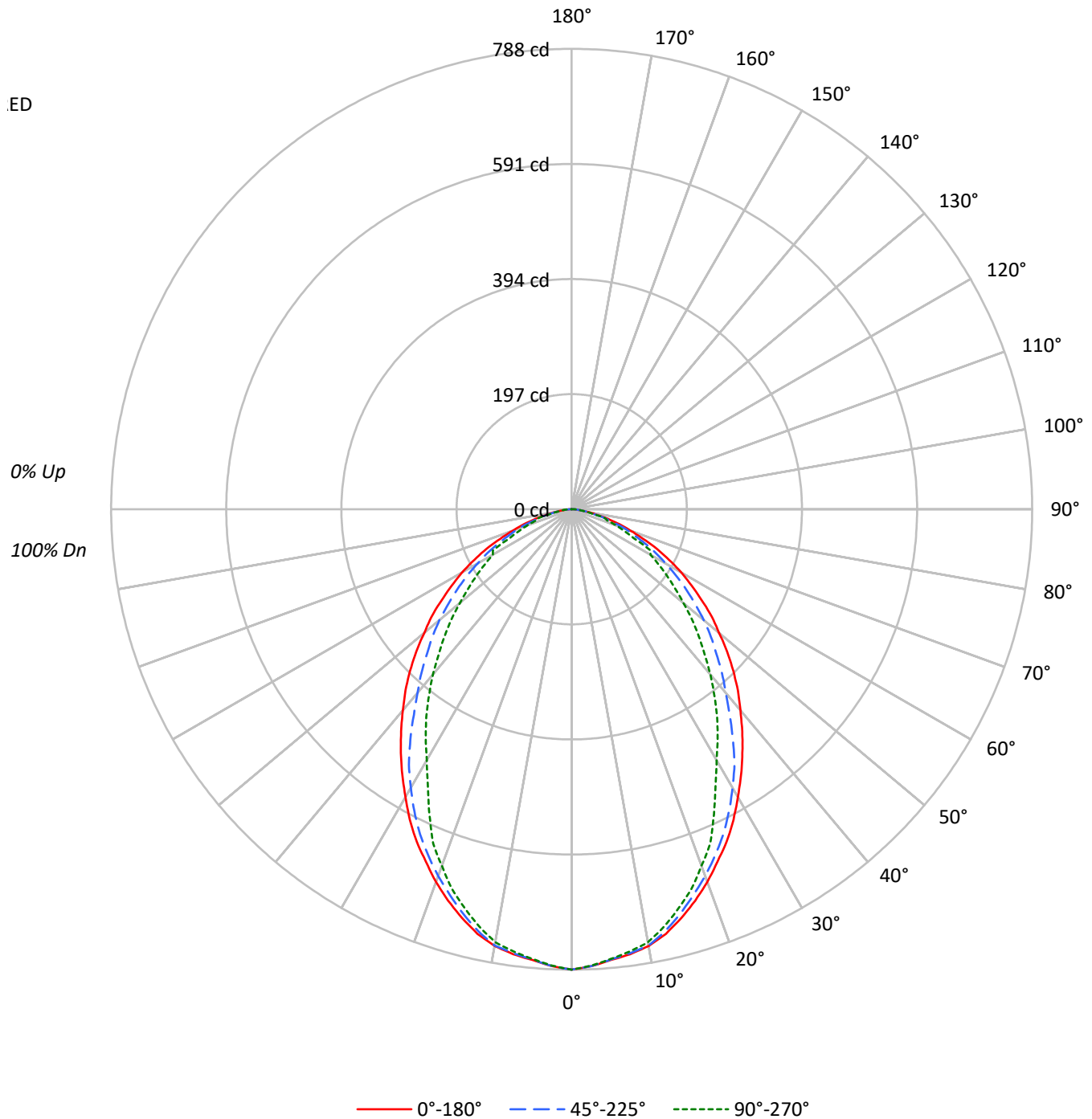
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8482	8482	8482
5°	8367	8357	8347
10°	8295	8285	8225
15°	8071	7990	7877
20°	7774	7649	7440
25°	7455	7292	6839
30°	7066	6838	6160
35°	6692	6320	5698
40°	6310	5761	5185
45°	5949	5325	4687
50°	5508	4943	4180
55°	5095	4480	3744
60°	4667	4000	3354
65°	4106	3505	2970
70°	3383	3068	2524
75°	2691	2350	2462
80°	1810	1692	1581
85°	1124	1346	1581

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5949 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	4.7
10°-20°	201.3	13.0
20°-30°	278.7	18.0
30°-40°	297.2	19.2
40°-50°	271.1	17.5
50°-60°	212.4	13.7
60°-70°	138.4	8.9
70°-80°	61.3	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°	553.4	35.8
0°-40°	850.6	55.0
0°-60°	1334.1	86.2
0°-90°	1547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1547.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	774	773	773	772	772	74
15°	724	724	717	710	707	204
25°	628	624	614	592	576	288
35°	509	506	481	445	434	318
45°	391	383	350	321	308	301
55°	272	263	239	210	200	244
65°	161	152	138	140	117	159
75°	65	60	56	54	59	69
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°	788.0	788.0	788.0	788.0	788.0
2.5°	782.6	782.6	782.6	781.6	781.6
5°	774.4	773.4	773.4	772.5	772.5
7.5°	768.0	767.1	766.2	765.2	763.4
10°	758.9	758.9	758.0	753.4	752.5
12.5°	744.3	743.4	739.7	733.4	731.5
15°	724.3	724.3	717.0	709.7	706.9
17.5°	702.4	701.5	692.4	685.1	681.4
20°	678.7	676.9	667.8	655.9	649.5
22.5°	652.3	652.3	641.3	625.9	619.5
25°	627.7	624.0	614.0	592.2	575.8
27.5°	599.4	594.0	583.0	552.1	532.9
30°	568.5	565.7	550.2	510.2	495.6
32.5°	539.3	534.8	518.4	476.5	464.6
35°	509.3	505.6	481.0	444.6	433.6
37.5°	479.2	474.6	443.7	414.5	400.8
40°	449.1	443.7	410.0	383.5	369.0
42.5°	420.9	413.6	380.8	352.6	336.2
45°	390.8	382.6	349.8	320.7	307.9
47.5°	360.8	353.5	323.4	293.3	278.8
50°	328.9	322.5	295.2	265.1	249.6
52.5°	302.5	292.4	266.0	236.0	223.2
55°	271.5	263.3	238.7	210.4	199.5
57.5°	243.2	235.0	212.3	185.8	176.7
60°	216.8	205.0	185.8	163.1	155.8
62.5°	187.7	178.6	162.2	143.0	152.1
65°	161.2	152.1	137.6	140.3	116.6
67.5°	132.1	127.5	114.8	102.0	98.4
70°	107.5	102.0	97.5	83.8	80.2
72.5°	85.6	80.2	73.8	66.5	63.8
75°	64.7	60.1	56.5	53.7	59.2
77.5°	44.6	42.8	40.1	37.4	36.4
80°	29.2	28.2	27.3	26.4	25.5
82.5°	17.3	17.3	17.3	17.3	17.3
85°	9.1	10.0	10.9	11.8	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)