

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: P559214

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-93-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559214
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1652.0 lumens
Efficiency: N/A
Efficacy: 76.5 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

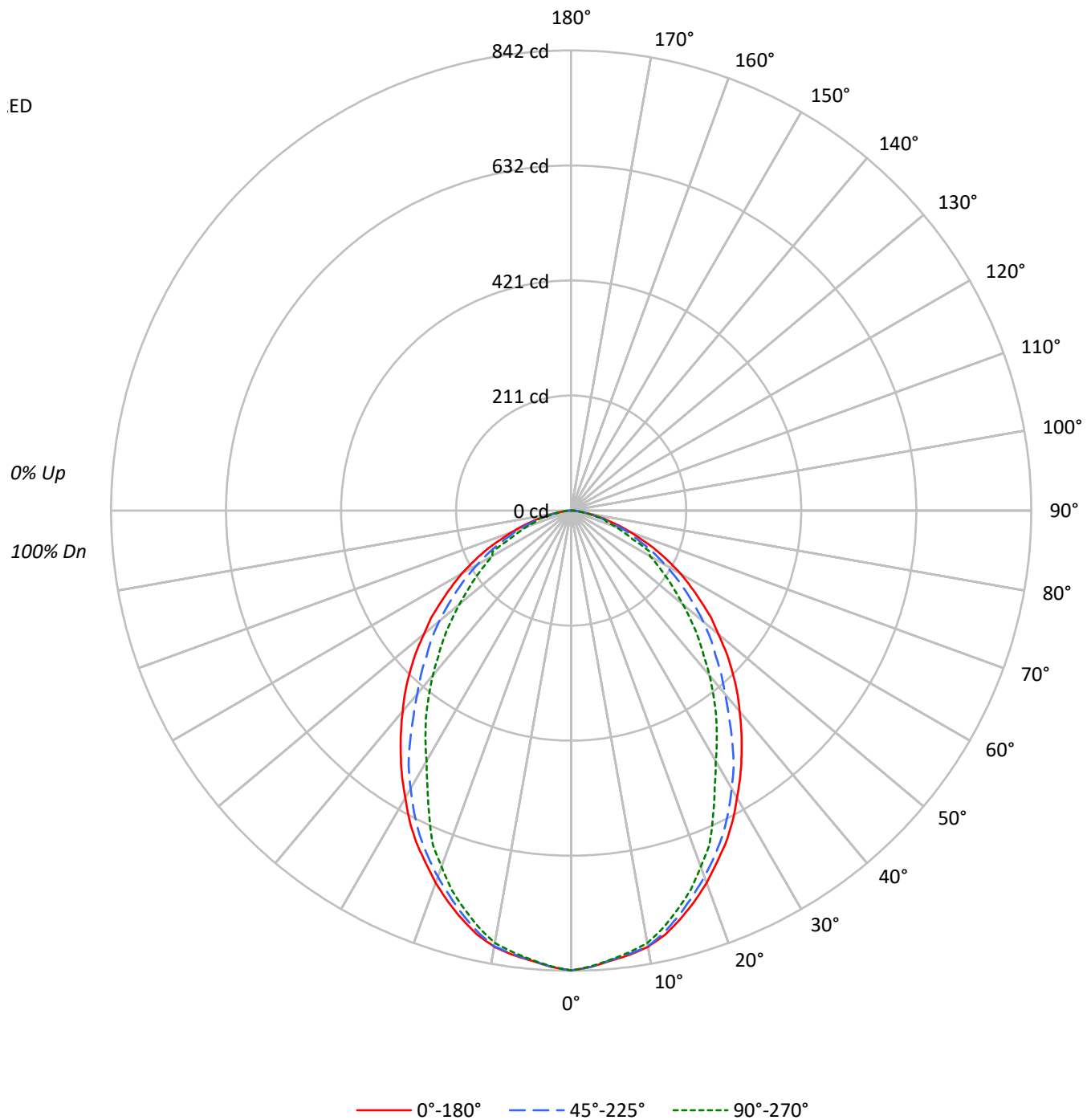
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9058	9058	9058
5°	8935	8924	8914
10°	8858	8847	8783
15°	8618	8532	8412
20°	8302	8168	7945
25°	7961	7788	7302
30°	7546	7303	6577
35°	7146	6750	6085
40°	6739	6152	5536
45°	6352	5687	5005
50°	5881	5278	4464
55°	5440	4784	3999
60°	4984	4273	3582
65°	4386	3741	3171
70°	3613	3276	2694
75°	2874	2508	2628
80°	1928	1810	1686
85°	1198	1445	1680

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6352 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	4.7
10°-20°	215.0	13.0
20°-30°	297.6	18.0
30°-40°	317.3	19.2
40°-50°	289.5	17.5
50°-60°	226.8	13.7
60°-70°	147.8	8.9
70°-80°	65.5	4.0
80°-90°	14.1	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°	590.9	35.8
0°-40°	908.3	55.0
0°-60°	1424.6	86.2
0°-90°	1652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1652.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	827	826	826	825	825	78
15°	773	773	766	758	755	217
25°	670	666	656	632	615	308
35°	544	540	514	475	463	340
45°	417	409	374	342	329	321
55°	290	281	255	225	213	260
65°	172	162	147	150	124	170
75°	69	64	60	57	63	74
85°	10	11	12	13	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	841.5	841.5	841.5	841.5	841.5
2.5°	835.7	835.7	835.7	834.7	834.7
5°	826.9	825.9	825.9	825.0	825.0
7.5°	820.1	819.1	818.2	817.2	815.2
10°	810.4	810.4	809.4	804.5	803.6
12.5°	794.8	793.8	789.9	783.1	781.2
15°	773.4	773.4	765.6	757.8	754.9
17.5°	750.1	749.1	739.4	731.6	727.7
20°	724.8	722.8	713.1	700.4	693.6
22.5°	696.6	696.6	684.9	668.3	661.5
25°	670.3	666.4	655.7	632.3	614.8
27.5°	640.1	634.3	622.6	589.5	569.1
30°	607.1	604.1	587.6	544.8	529.2
32.5°	575.9	571.1	553.5	508.8	496.1
35°	543.8	539.9	513.7	474.7	463.1
37.5°	511.7	506.8	473.8	442.6	428.0
40°	479.6	473.8	437.8	409.6	394.0
42.5°	449.5	441.7	406.6	376.5	359.0
45°	417.3	408.6	373.6	342.4	328.8
47.5°	385.2	377.5	345.4	313.3	297.7
50°	351.2	344.4	315.2	283.1	266.6
52.5°	323.0	312.3	284.1	252.0	238.3
55°	289.9	281.2	254.9	224.7	213.1
57.5°	259.7	251.0	226.7	198.5	188.7
60°	231.5	218.9	198.5	174.1	166.4
62.5°	200.4	190.7	173.2	152.7	162.5
65°	172.2	162.5	146.9	149.8	124.5
67.5°	141.1	136.2	122.6	109.0	105.1
70°	114.8	109.0	104.1	89.5	85.6
72.5°	91.4	85.6	78.8	71.0	68.1
75°	69.1	64.2	60.3	57.4	63.2
77.5°	47.7	45.7	42.8	39.9	38.9
80°	31.1	30.2	29.2	28.2	27.2
82.5°	18.5	18.5	18.5	18.5	18.5
85°	9.7	10.7	11.7	12.6	13.6
87.5°	5.8	5.8	6.8	7.8	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)