

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: P559082

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559082
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-93-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 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: 1622.0 lumens
Efficiency: N/A
Efficacy: 75.1 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

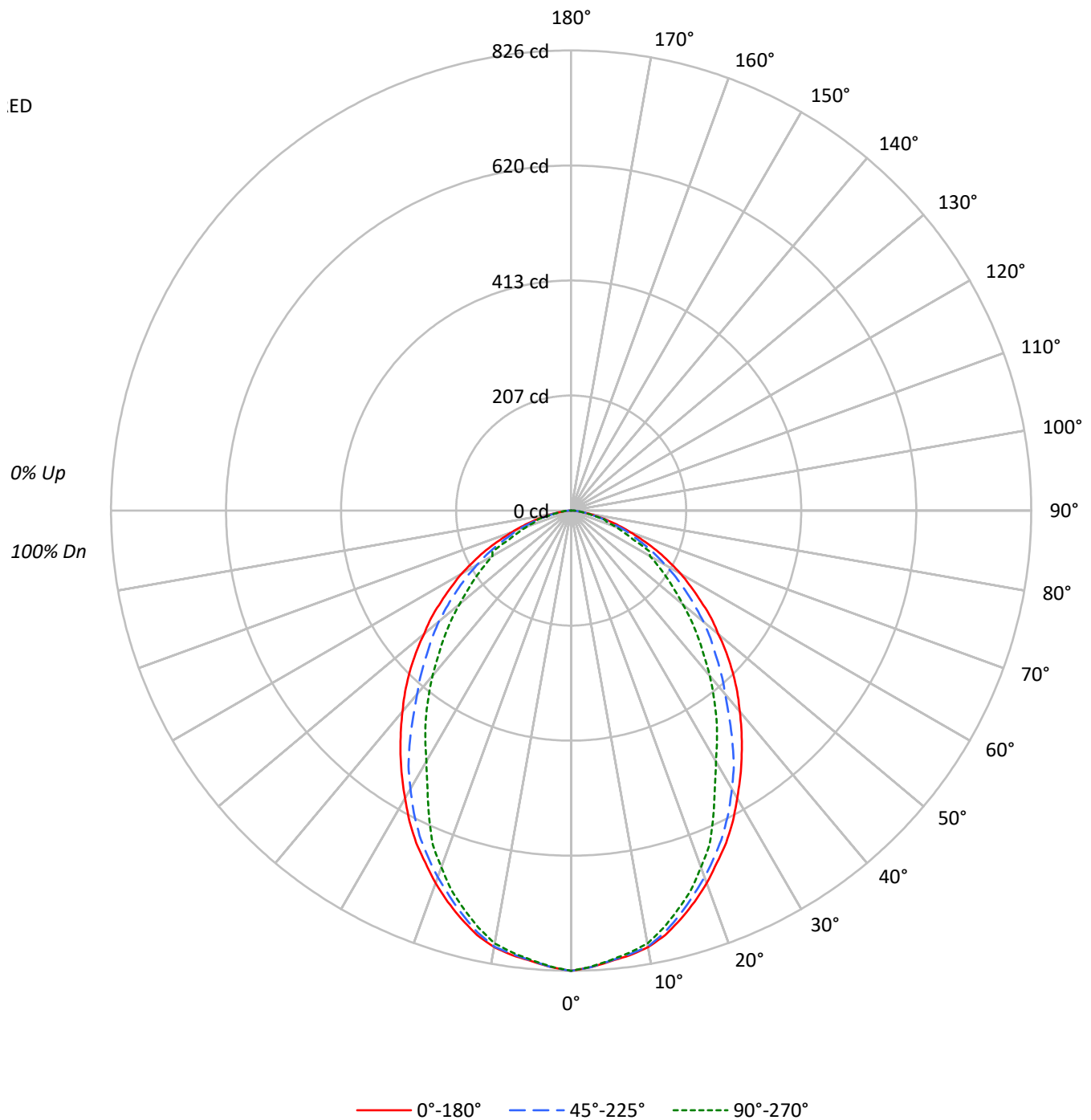
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8893	8893	8893
5°	8773	8762	8752
10°	8697	8686	8624
15°	8462	8377	8260
20°	8151	8019	7801
25°	7816	7646	7170
30°	7408	7170	6458
35°	7016	6627	5975
40°	6617	6039	5435
45°	6238	5584	4914
50°	5774	5183	4382
55°	5341	4697	3926
60°	4893	4196	3515
65°	4307	3673	3115
70°	3547	3216	2647
75°	2820	2462	2583
80°	1897	1779	1655
85°	1186	1420	1655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6238 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	4.7
10°-20°	211.1	13.0
20°-30°	292.2	18.0
30°-40°	311.6	19.2
40°-50°	284.3	17.5
50°-60°	222.7	13.7
60°-70°	145.1	8.9
70°-80°	64.3	4.0
80°-90°	13.8	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°	580.2	35.8
0°-40°	891.8	55.0
0°-60°	1398.7	86.2
0°-90°	1622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	812	811	811	810	810	77
15°	759	759	752	744	741	213
25°	658	654	644	621	604	302
35°	534	530	504	466	455	334
45°	410	401	367	336	323	316
55°	285	276	250	221	209	255
65°	169	160	144	147	122	167
75°	68	63	59	56	62	73
85°	10	10	12	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	826.2	826.2	826.2	826.2	826.2
2.5°	820.5	820.5	820.5	819.5	819.5
5°	811.9	810.9	810.9	810.0	810.0
7.5°	805.2	804.3	803.3	802.3	800.4
10°	795.7	795.7	794.7	789.9	789.0
12.5°	780.4	779.4	775.6	768.9	767.0
15°	759.4	759.4	751.7	744.1	741.2
17.5°	736.4	735.5	725.9	718.3	714.5
20°	711.6	709.7	700.1	687.7	681.0
22.5°	683.9	683.9	672.4	656.2	649.5
25°	658.1	654.3	643.8	620.9	603.7
27.5°	628.5	622.8	611.3	578.8	558.8
30°	596.0	593.2	576.9	534.9	519.6
32.5°	565.5	560.7	543.5	499.6	487.1
35°	533.9	530.1	504.3	466.1	454.7
37.5°	502.4	497.6	465.2	434.6	420.3
40°	470.9	465.2	429.8	402.1	386.8
42.5°	441.3	433.6	399.3	369.7	352.5
45°	409.8	401.2	366.8	336.2	322.8
47.5°	378.2	370.6	339.1	307.6	292.3
50°	344.8	338.1	309.5	278.0	261.7
52.5°	317.1	306.6	278.9	247.4	234.0
55°	284.6	276.0	250.3	220.6	209.2
57.5°	255.0	246.4	222.6	194.9	185.3
60°	227.3	214.9	194.9	171.0	163.3
62.5°	196.8	187.2	170.0	150.0	159.5
65°	169.1	159.5	144.2	147.1	122.3
67.5°	138.5	133.7	120.4	107.0	103.2
70°	112.7	107.0	102.2	87.9	84.1
72.5°	89.8	84.1	77.4	69.7	66.9
75°	67.8	63.0	59.2	56.4	62.1
77.5°	46.8	44.9	42.0	39.2	38.2
80°	30.6	29.6	28.7	27.7	26.7
82.5°	18.1	18.1	18.1	18.1	18.1
85°	9.6	10.5	11.5	12.4	13.4
87.5°	5.7	5.7	6.7	7.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)