

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: P559638

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-82-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559638
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-82-87-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1365.0 lumens
Efficiency: N/A
Efficacy: 63.2 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

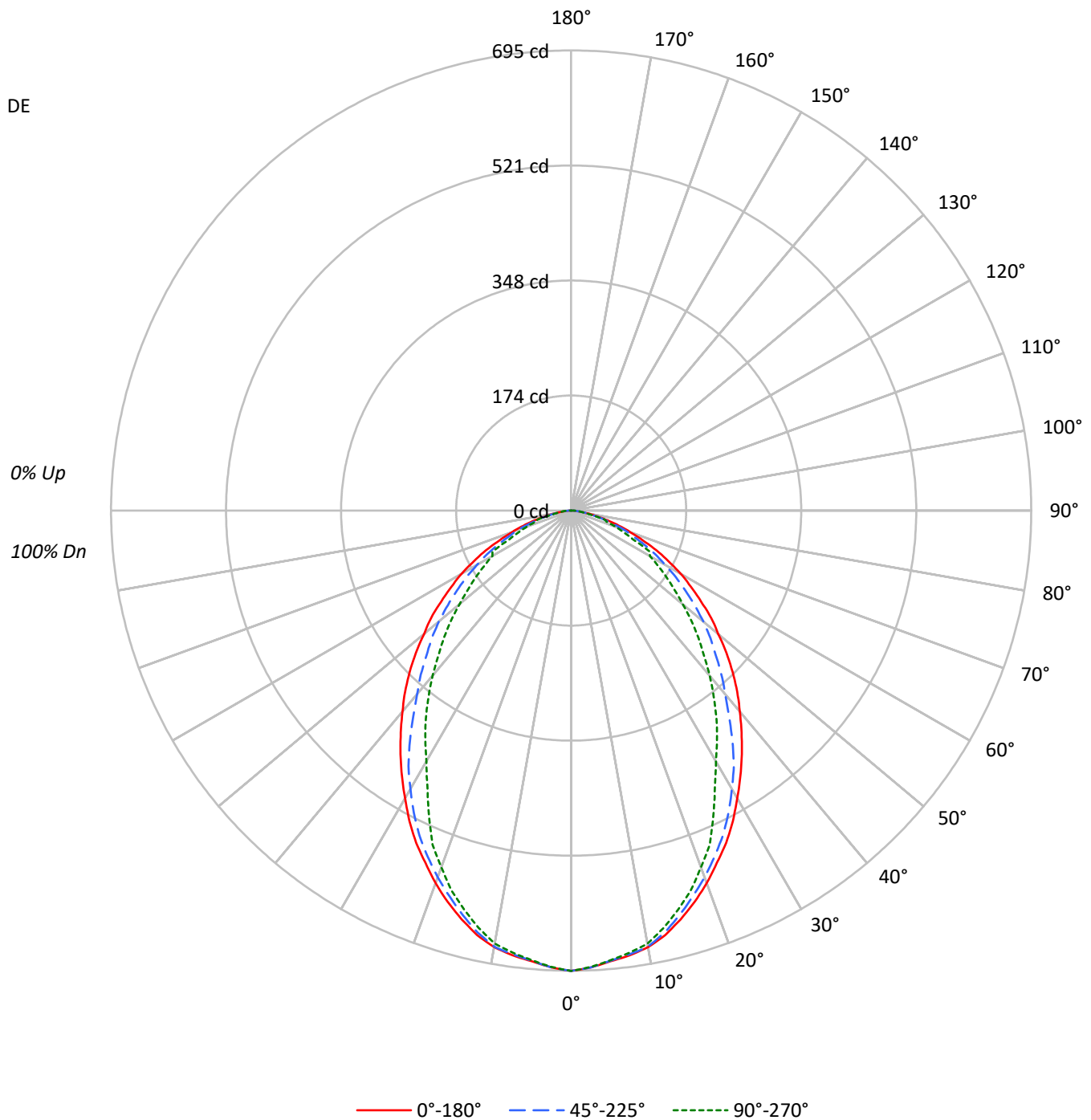
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559638

CATALOG NUMBER: FSR-12-2-LD4-1HI-35-UNV-82-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559638

CATALOG NUMBER: FSR-12-2-LD4-1HI-35-UNV-82-87-EDD-90

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	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°	3742	3742	3742
5°	3692	3687	3682
10°	3659	3655	3629
15°	3560	3525	3476
20°	3430	3375	3282
25°	3289	3217	3017
30°	3117	3017	2718
35°	2952	2788	2514
40°	2784	2541	2288
45°	2624	2350	2068
50°	2430	2180	1844
55°	2247	1976	1651
60°	2059	1765	1480
65°	1812	1546	1310
70°	1493	1353	1113
75°	1187	1036	1085
80°	797	747	697
85°	494	593	698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2624 cd/sqm

TEST NUMBER: P559638

CATALOG NUMBER: FSR-12-2-LD4-1HI-35-UNV-82-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.7	4.7
10°-20°	177.6	13.0
20°-30°	245.9	18.0
30°-40°	262.2	19.2
40°-50°	239.2	17.5
50°-60°	187.4	13.7
60°-70°	122.1	8.9
70°-80°	54.1	4.0
80°-90°	11.6	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°	488.3	35.8
0°-40°	750.5	55.0
0°-60°	1177.1	86.2
0°-90°	1365.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1365.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	683	682	682	682	682	65
15°	639	639	633	626	624	180
25°	554	551	542	522	508	254
35°	449	446	424	392	383	281
45°	345	338	309	283	272	266
55°	240	232	211	186	176	215
65°	142	134	121	124	103	140
75°	57	53	50	47	52	61
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



TEST NUMBER: P559638

CATALOG NUMBER: FSR-12-2-LD4-1HI-35-UNV-82-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	695.3	695.3	695.3	695.3	695.3
2.5°	690.5	690.5	690.5	689.7	689.7
5°	683.3	682.5	682.5	681.6	681.6
7.5°	677.6	676.8	676.0	675.2	673.6
10°	669.6	669.6	668.8	664.8	664.0
12.5°	656.7	655.9	652.7	647.1	645.5
15°	639.0	639.0	632.6	626.2	623.8
17.5°	619.8	618.9	610.9	604.5	601.3
20°	598.9	597.2	589.2	578.8	573.1
22.5°	575.5	575.5	565.9	552.2	546.6
25°	553.8	550.6	541.8	522.5	508.0
27.5°	528.9	524.1	514.5	487.1	470.2
30°	501.6	499.2	485.5	450.1	437.3
32.5°	475.9	471.8	457.4	420.4	410.0
35°	449.3	446.1	424.4	392.3	382.6
37.5°	422.8	418.8	391.5	365.7	353.7
40°	396.3	391.5	361.7	338.4	325.6
42.5°	371.4	364.9	336.0	311.1	296.6
45°	344.8	337.6	308.7	282.9	271.7
47.5°	318.3	311.9	285.4	258.8	246.0
50°	290.2	284.6	260.4	233.9	220.2
52.5°	266.9	258.0	234.7	208.2	196.9
55°	239.5	232.3	210.6	185.7	176.0
57.5°	214.6	207.4	187.3	164.0	155.9
60°	191.3	180.9	164.0	143.9	137.5
62.5°	165.6	157.6	143.1	126.2	134.2
65°	142.3	134.2	121.4	123.8	102.9
67.5°	116.6	112.5	101.3	90.0	86.8
70°	94.9	90.0	86.0	74.0	70.7
72.5°	75.6	70.7	65.1	58.7	56.3
75°	57.1	53.1	49.8	47.4	52.2
77.5°	39.4	37.8	35.4	33.0	32.2
80°	25.7	24.9	24.1	23.3	22.5
82.5°	15.3	15.3	15.3	15.3	15.3
85°	8.0	8.8	9.6	10.4	11.3
87.5°	4.8	4.8	5.6	6.4	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)