

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: P560434

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560434
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-LD4-2LO-40-UNV-80-85-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1895.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

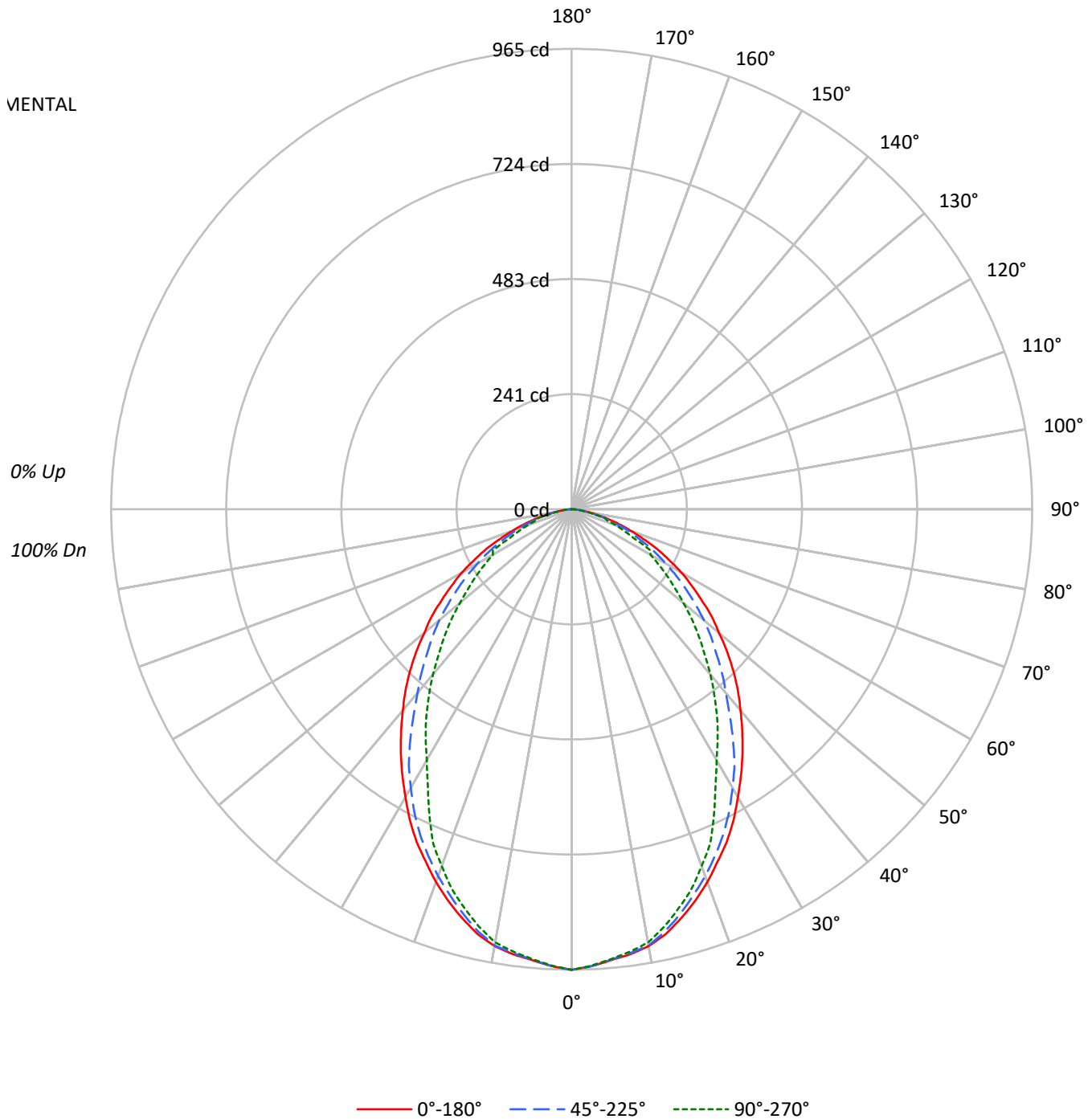
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5195	5195	5195
5°	5124	5118	5112
10°	5080	5074	5038
15°	4943	4893	4825
20°	4762	4685	4557
25°	4566	4466	4188
30°	4327	4189	3773
35°	4098	3871	3490
40°	3866	3528	3176
45°	3643	3261	2871
50°	3373	3028	2560
55°	3120	2744	2293
60°	2859	2451	2054
65°	2515	2146	1819
70°	2072	1879	1545
75°	1647	1439	1508
80°	1106	1038	967
85°	692	827	963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3643 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	4.7
10°-20°	246.6	13.0
20°-30°	341.4	18.0
30°-40°	364.0	19.2
40°-50°	332.1	17.5
50°-60°	260.2	13.7
60°-70°	169.6	8.9
70°-80°	75.1	4.0
80°-90°	16.1	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°	677.9	35.8
0°-40°	1041.9	55.0
0°-60°	1634.2	86.2
0°-90°	1895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1895.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	948	947	947	946	946	90
15°	887	887	878	869	866	249
25°	769	764	752	725	705	353
35°	624	619	589	545	531	390
45°	479	469	428	393	377	369
55°	332	322	292	258	244	298
65°	198	186	168	172	143	195
75°	79	74	69	66	72	85
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	965.3	965.3	965.3	965.3	965.3
2.5°	958.6	958.6	958.6	957.5	957.5
5°	948.5	947.4	947.4	946.3	946.3
7.5°	940.7	939.6	938.5	937.4	935.2
10°	929.6	929.6	928.5	922.9	921.8
12.5°	911.7	910.6	906.1	898.3	896.1
15°	887.2	887.2	878.2	869.3	866.0
17.5°	860.4	859.3	848.1	839.2	834.7
20°	831.4	829.1	818.0	803.5	795.7
22.5°	799.0	799.0	785.6	766.7	758.8
25°	768.9	764.4	752.1	725.4	705.3
27.5°	734.3	727.6	714.2	676.3	652.8
30°	696.3	693.0	674.0	624.9	607.1
32.5°	660.6	655.1	635.0	583.6	569.1
35°	623.8	619.3	589.2	544.6	531.2
37.5°	587.0	581.4	543.5	507.8	491.0
40°	550.2	543.5	502.2	469.8	452.0
42.5°	515.6	506.6	466.5	431.9	411.8
45°	478.7	468.7	428.5	392.8	377.2
47.5°	441.9	433.0	396.2	359.3	341.5
50°	402.9	395.0	361.6	324.7	305.8
52.5°	370.5	358.2	325.9	289.0	273.4
55°	332.5	322.5	292.4	257.8	244.4
57.5°	298.0	287.9	260.0	227.7	216.5
60°	265.6	251.1	227.7	199.8	190.8
62.5°	229.9	218.7	198.6	175.2	186.4
65°	197.5	186.4	168.5	171.9	142.8
67.5°	161.8	156.2	140.6	125.0	120.5
70°	131.7	125.0	119.4	102.7	98.2
72.5°	104.9	98.2	90.4	81.5	78.1
75°	79.2	73.7	69.2	65.8	72.5
77.5°	54.7	52.4	49.1	45.8	44.6
80°	35.7	34.6	33.5	32.4	31.2
82.5°	21.2	21.2	21.2	21.2	21.2
85°	11.2	12.3	13.4	14.5	15.6
87.5°	6.7	6.7	7.8	8.9	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)