

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: P561912

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561912
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-24-2-LD4-1LO-35-UNV-80-88-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2059.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

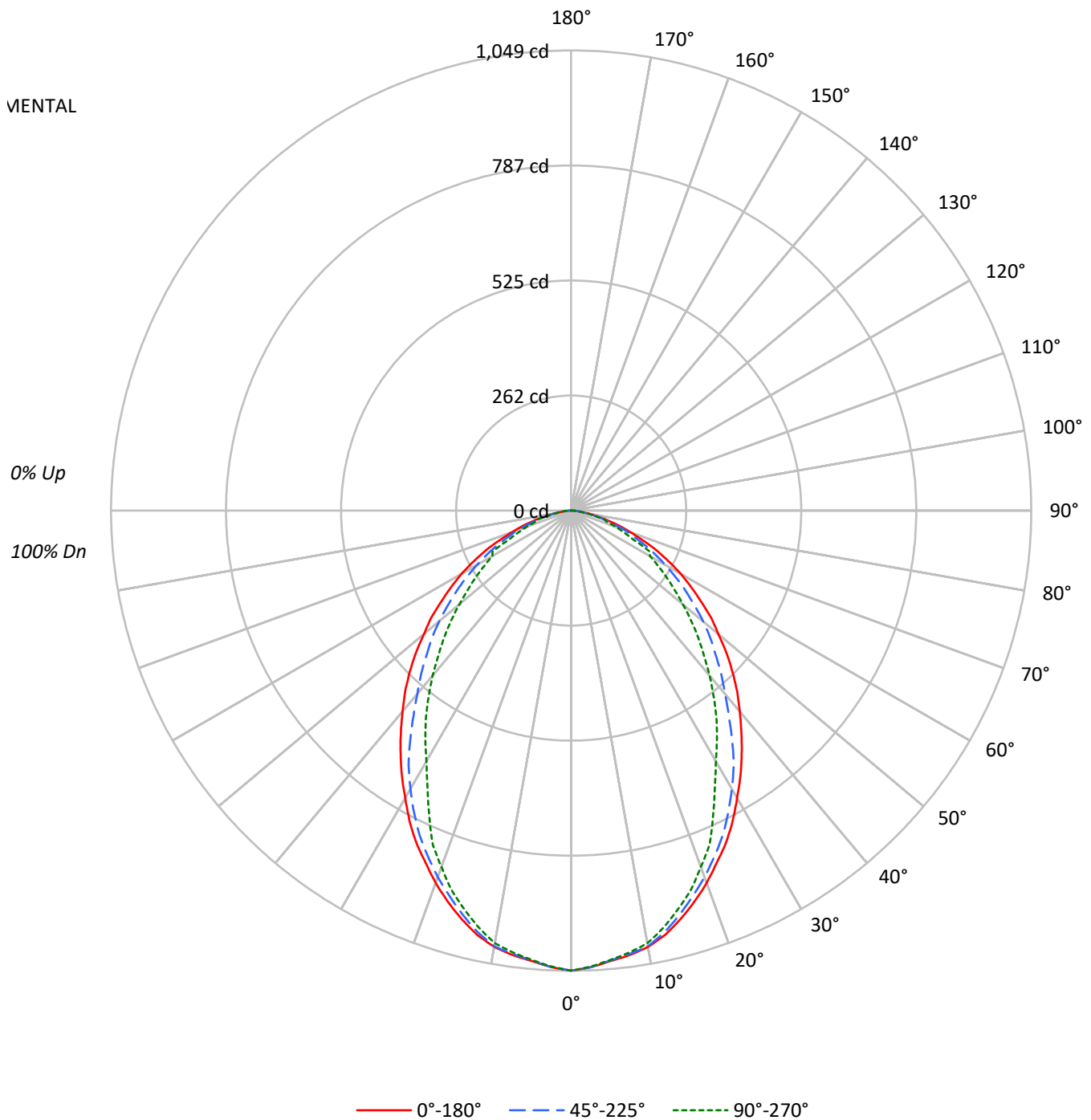
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	1411	1411	1411
5°	1392	1390	1389
10°	1380	1378	1368
15°	1343	1329	1311
20°	1293	1273	1238
25°	1240	1213	1138
30°	1175	1138	1025
35°	1113	1052	948
40°	1050	958	863
45°	990	886	780
50°	916	822	695
55°	848	745	623
60°	777	666	558
65°	683	583	494
70°	563	510	420
75°	448	391	410
80°	301	282	263
85°	187	225	262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 990 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	4.7
10°-20°	267.9	13.0
20°-30°	370.9	18.0
30°-40°	395.5	19.2
40°-50°	360.8	17.5
50°-60°	282.7	13.7
60°-70°	184.3	8.9
70°-80°	81.6	4.0
80°-90°	17.5	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°	736.5	35.8
0°-40°	1132.1	55.0
0°-60°	1775.6	86.2
0°-90°	2059.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2059.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1031	1029	1029	1028	1028	98
15°	964	964	954	945	941	271
25°	835	831	817	788	766	384
35°	678	673	640	592	577	424
45°	520	509	466	427	410	401
55°	361	350	318	280	266	324
65°	215	202	183	187	155	212
75°	86	80	75	72	79	92
85°	12	13	15	16	17	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.8	1048.8	1048.8	1048.8	1048.8
2.5°	1041.6	1041.6	1041.6	1040.3	1040.3
5°	1030.6	1029.4	1029.4	1028.2	1028.2
7.5°	1022.2	1020.9	1019.7	1018.5	1016.1
10°	1010.0	1010.0	1008.8	1002.8	1001.5
12.5°	990.6	989.4	984.6	976.1	973.7
15°	964.0	964.0	954.3	944.6	940.9
17.5°	934.9	933.6	921.5	911.8	907.0
20°	903.3	900.9	888.8	873.0	864.5
22.5°	868.2	868.2	853.6	833.0	824.5
25°	835.4	830.6	817.2	788.1	766.3
27.5°	797.8	790.6	776.0	734.8	709.3
30°	756.6	753.0	732.4	679.0	659.6
32.5°	717.8	711.7	689.9	634.1	618.4
35°	677.8	672.9	640.2	591.7	577.2
37.5°	637.8	631.7	590.5	551.7	533.5
40°	597.8	590.5	545.6	510.5	491.1
42.5°	560.2	550.5	506.8	469.2	447.4
45°	520.2	509.3	465.6	426.8	409.8
47.5°	480.2	470.5	430.4	390.4	371.0
50°	437.7	429.2	392.9	352.8	332.2
52.5°	402.6	389.2	354.1	314.0	297.1
55°	361.3	350.4	317.7	280.1	265.5
57.5°	323.7	312.8	282.5	247.4	235.2
60°	288.6	272.8	247.4	217.0	207.3
62.5°	249.8	237.7	215.8	190.4	202.5
65°	214.6	202.5	183.1	186.7	155.2
67.5°	175.8	169.8	152.8	135.8	131.0
70°	143.1	135.8	129.7	111.6	106.7
72.5°	114.0	106.7	98.2	88.5	84.9
75°	86.1	80.0	75.2	71.5	78.8
77.5°	59.4	57.0	53.4	49.7	48.5
80°	38.8	37.6	36.4	35.2	34.0
82.5°	23.0	23.0	23.0	23.0	23.0
85°	12.1	13.3	14.6	15.8	17.0
87.5°	7.3	7.3	8.5	9.7	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)