

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: P560297

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560297
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-LD4-2HI-40-UNV-93-88-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3198.0 lumens
Efficiency: N/A
Efficacy: 74.0 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

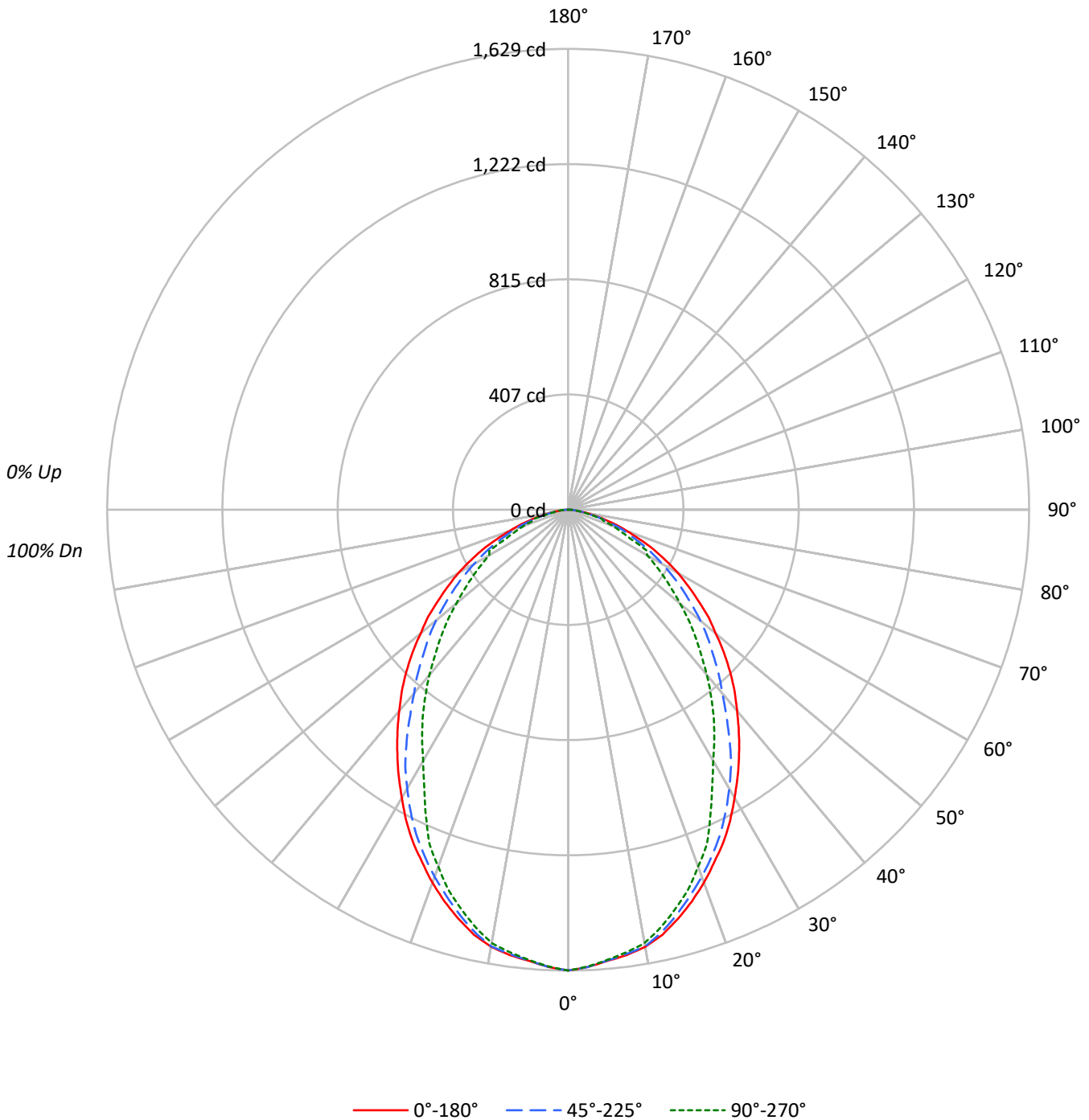
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8767	8767	8767
5°	8648	8638	8628
10°	8573	8563	8501
15°	8342	8258	8143
20°	8035	7906	7691
25°	7706	7538	7068
30°	7303	7069	6367
35°	6916	6533	5889
40°	6523	5954	5358
45°	6149	5504	4845
50°	5693	5109	4320
55°	5266	4630	3870
60°	4824	4135	3466
65°	4245	3622	3070
70°	3496	3171	2607
75°	2780	2429	2545
80°	1869	1751	1633
85°	1161	1396	1630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6149 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	4.7
10°-20°	416.2	13.0
20°-30°	576.1	18.0
30°-40°	614.3	19.2
40°-50°	560.5	17.5
50°-60°	439.1	13.7
60°-70°	286.2	8.9
70°-80°	126.8	4.0
80°-90°	27.2	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°	1144.0	35.8
0°-40°	1758.3	55.0
0°-60°	2757.8	86.2
0°-90°	3198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3198.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1629	1629	1629	1629	1629	
5°	1601	1599	1599	1597	1597	152
15°	1497	1497	1482	1467	1461	421
25°	1298	1290	1269	1224	1190	596
35°	1053	1045	994	919	896	658
45°	808	791	723	663	636	622
55°	561	544	493	435	412	503
65°	333	314	284	290	241	329
75°	134	124	117	111	122	143
85°	19	21	23	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1629.0	1629.0	1629.0	1629.0	1629.0
2.5°	1617.7	1617.7	1617.7	1615.8	1615.8
5°	1600.8	1598.9	1598.9	1597.0	1597.0
7.5°	1587.6	1585.7	1583.8	1581.9	1578.2
10°	1568.8	1568.8	1566.9	1557.5	1555.6
12.5°	1538.6	1536.7	1529.2	1516.0	1512.3
15°	1497.2	1497.2	1482.1	1467.1	1461.4
17.5°	1452.0	1450.1	1431.3	1416.2	1408.7
20°	1403.0	1399.3	1380.4	1355.9	1342.8
22.5°	1348.4	1348.4	1325.8	1293.8	1280.6
25°	1297.6	1290.0	1269.3	1224.1	1190.2
27.5°	1239.2	1227.9	1205.3	1141.3	1101.7
30°	1175.2	1169.5	1137.5	1054.6	1024.5
32.5°	1114.9	1105.5	1071.6	984.9	960.5
35°	1052.7	1045.2	994.4	919.0	896.4
37.5°	990.6	981.2	917.1	856.9	828.6
40°	928.4	917.1	847.5	792.9	762.7
42.5°	870.1	855.0	787.2	728.8	694.9
45°	807.9	791.0	723.2	662.9	636.5
47.5°	745.8	730.7	668.6	606.4	576.3
50°	679.9	666.7	610.2	548.0	516.0
52.5°	625.2	604.5	549.9	487.8	461.4
55°	561.2	544.3	493.4	435.0	412.4
57.5°	502.8	485.9	438.8	384.2	365.4
60°	448.2	423.7	384.2	337.1	322.0
62.5°	388.0	369.1	335.2	295.7	314.5
65°	333.3	314.5	284.4	290.0	241.1
67.5°	273.1	263.7	237.3	210.9	203.4
70°	222.2	210.9	201.5	173.3	165.7
72.5°	177.0	165.7	152.5	137.5	131.8
75°	133.7	124.3	116.8	111.1	122.4
77.5°	92.3	88.5	82.9	77.2	75.3
80°	60.3	58.4	56.5	54.6	52.7
82.5°	35.8	35.8	35.8	35.8	35.8
85°	18.8	20.7	22.6	24.5	26.4
87.5°	11.3	11.3	13.2	15.1	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)