

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: P560272

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560272
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-82-84-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2953.0 lumens
Efficiency: N/A
Efficacy: 68.4 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

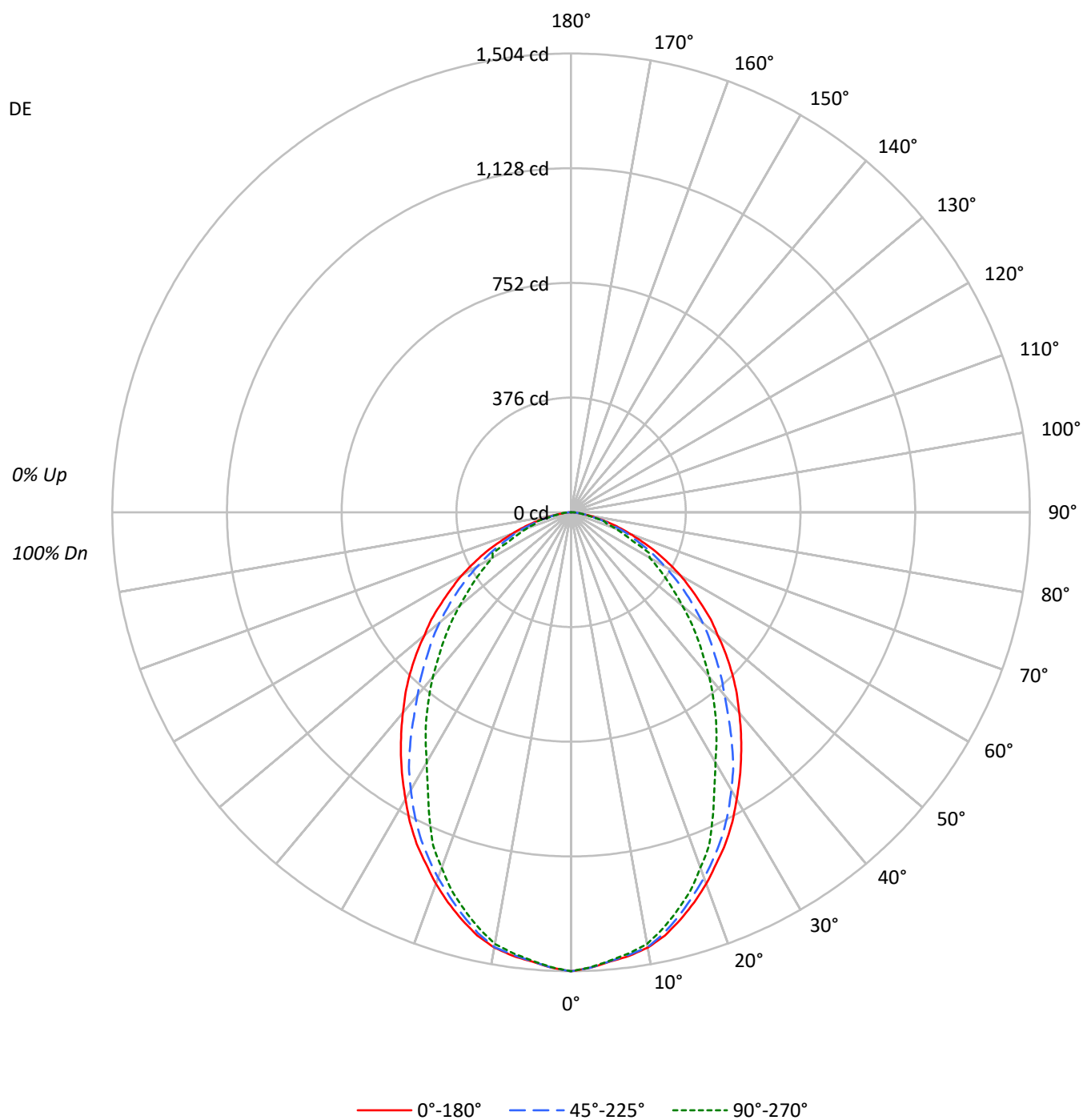
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	8096	8096	8096
5°	7985	7976	7967
10°	7917	7907	7850
15°	7703	7626	7519
20°	7420	7301	7101
25°	7115	6960	6526
30°	6743	6527	5879
35°	6387	6033	5439
40°	6023	5498	4948
45°	5678	5083	4474
50°	5256	4717	3990
55°	4862	4275	3573
60°	4455	3819	3201
65°	3920	3344	2835
70°	3229	2928	2408
75°	2568	2242	2350
80°	1723	1618	1509
85°	1074	1291	1501

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5678 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.0	4.7
10°-20°	384.3	13.0
20°-30°	532.0	18.0
30°-40°	567.3	19.2
40°-50°	517.5	17.5
50°-60°	405.4	13.7
60°-70°	264.2	8.9
70°-80°	117.1	4.0
80°-90°	25.1	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°	1056.3	35.8
0°-40°	1623.6	55.0
0°-60°	2546.6	86.2
0°-90°	2953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1478	1476	1476	1475	1475	140
15°	1382	1382	1369	1355	1349	389
25°	1198	1191	1172	1130	1099	550
35°	972	965	918	849	828	608
45°	746	730	668	612	588	575
55°	518	503	456	402	381	465
65°	308	290	263	268	223	303
75°	124	115	108	103	113	132
85°	17	19	21	23	24	24
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1504.2	1504.2	1504.2	1504.2	1504.2
2.5°	1493.8	1493.8	1493.8	1492.0	1492.0
5°	1478.1	1476.4	1476.4	1474.7	1474.7
7.5°	1466.0	1464.2	1462.5	1460.7	1457.3
10°	1448.6	1448.6	1446.8	1438.1	1436.4
12.5°	1420.7	1419.0	1412.1	1399.9	1396.4
15°	1382.5	1382.5	1368.6	1354.7	1349.4
17.5°	1340.8	1339.0	1321.6	1307.7	1300.8
20°	1295.5	1292.1	1274.7	1252.1	1239.9
22.5°	1245.1	1245.1	1224.2	1194.7	1182.5
25°	1198.2	1191.2	1172.1	1130.3	1099.0
27.5°	1144.2	1133.8	1112.9	1053.8	1017.3
30°	1085.1	1079.9	1050.3	973.8	946.0
32.5°	1029.5	1020.8	989.5	909.5	886.9
35°	972.1	965.1	918.2	848.6	827.8
37.5°	914.7	906.0	846.9	791.2	765.2
40°	857.3	846.9	782.5	732.1	704.3
42.5°	803.4	789.5	726.9	673.0	641.7
45°	746.0	730.4	667.8	612.1	587.8
47.5°	688.6	674.7	617.3	560.0	532.1
50°	627.8	615.6	563.4	506.0	476.5
52.5°	577.3	558.2	507.8	450.4	426.1
55°	518.2	502.6	455.6	401.7	380.8
57.5°	464.3	448.7	405.2	354.8	337.4
60°	413.9	391.3	354.8	311.3	297.4
62.5°	358.2	340.8	309.5	273.0	290.4
65°	307.8	290.4	262.6	267.8	222.6
67.5°	252.2	243.5	219.1	194.8	187.8
70°	205.2	194.8	186.1	160.0	153.0
72.5°	163.5	153.0	140.9	126.9	121.7
75°	123.5	114.8	107.8	102.6	113.0
77.5°	85.2	81.7	76.5	71.3	69.6
80°	55.6	53.9	52.2	50.4	48.7
82.5°	33.0	33.0	33.0	33.0	33.0
85°	17.4	19.1	20.9	22.6	24.3
87.5°	10.4	10.4	12.2	13.9	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)