

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: P560217

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-82-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560217
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-35-UNV-82-88-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2938.0 lumens
Efficiency: N/A
Efficacy: 68.0 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

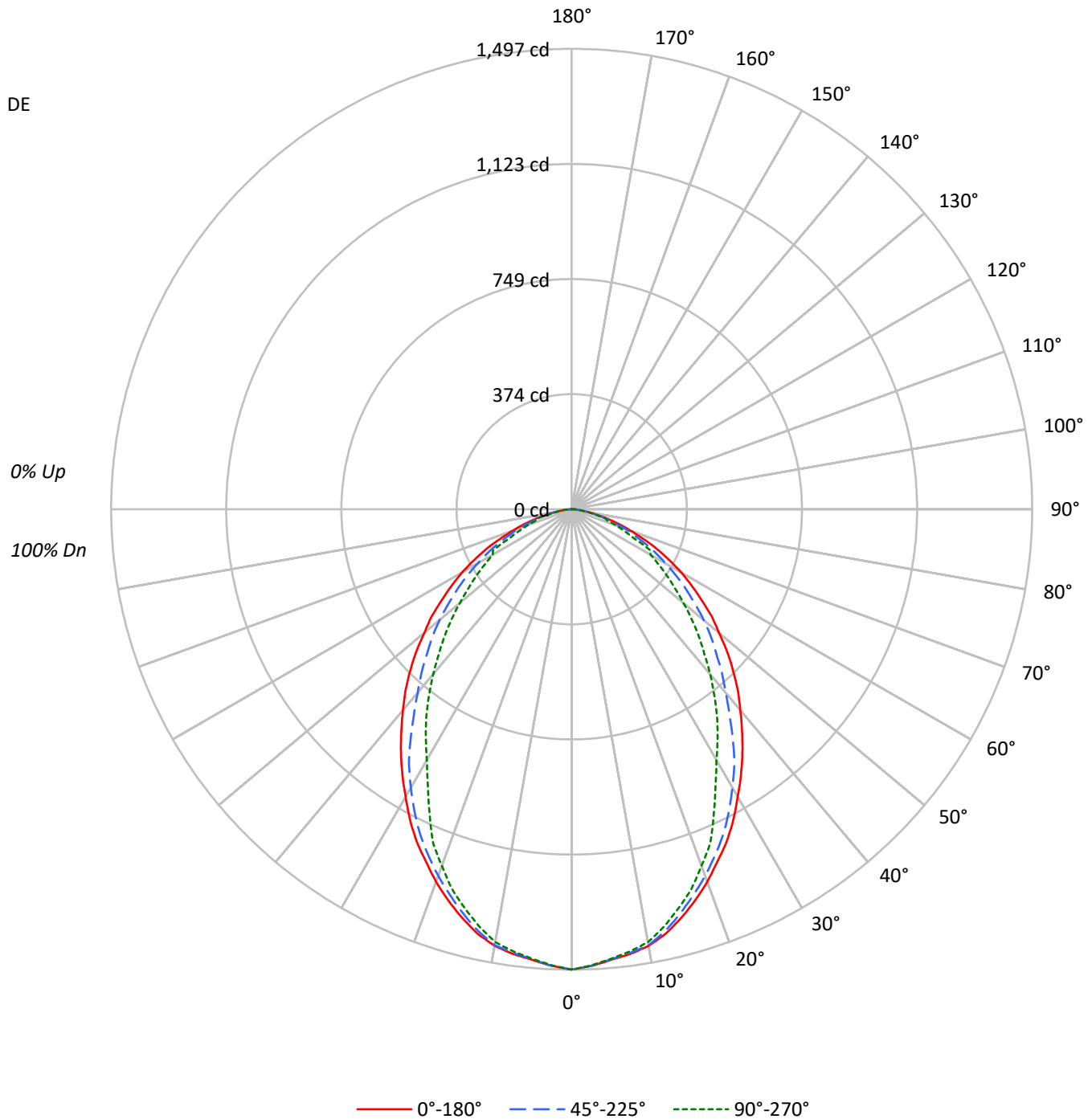
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8055	8055	8055
5°	7945	7936	7927
10°	7876	7867	7810
15°	7664	7587	7481
20°	7383	7263	7065
25°	7079	6925	6494
30°	6709	6494	5849
35°	6355	6002	5411
40°	5993	5470	4923
45°	5649	5057	4451
50°	5230	4694	3970
55°	4838	4253	3555
60°	4433	3800	3185
65°	3899	3328	2821
70°	3213	2913	2397
75°	2554	2231	2339
80°	1717	1609	1500
85°	1068	1284	1494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5649 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.3	4.7
10°-20°	382.3	13.0
20°-30°	529.3	18.0
30°-40°	564.4	19.2
40°-50°	514.9	17.5
50°-60°	403.4	13.7
60°-70°	262.9	8.9
70°-80°	116.5	4.0
80°-90°	25.0	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°	1051.0	35.8
0°-40°	1615.4	55.0
0°-60°	2533.6	86.2
0°-90°	2938.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2938.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1497	1497	1497	1497	1497	
5°	1471	1469	1469	1467	1467	140
15°	1376	1376	1362	1348	1343	387
25°	1192	1185	1166	1125	1094	547
35°	967	960	914	844	824	605
45°	742	727	664	609	585	572
55°	516	500	453	400	379	462
65°	306	289	261	266	222	302
75°	123	114	107	102	112	132
85°	17	19	21	22	24	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1496.6	1496.6	1496.6	1496.6	1496.6
2.5°	1486.2	1486.2	1486.2	1484.5	1484.5
5°	1470.6	1468.9	1468.9	1467.2	1467.2
7.5°	1458.5	1456.8	1455.1	1453.3	1449.9
10°	1441.2	1441.2	1439.5	1430.8	1429.1
12.5°	1413.5	1411.8	1404.9	1392.8	1389.3
15°	1375.5	1375.5	1361.6	1347.8	1342.6
17.5°	1333.9	1332.2	1314.9	1301.1	1294.2
20°	1289.0	1285.5	1268.2	1245.7	1233.6
22.5°	1238.8	1238.8	1218.0	1188.6	1176.5
25°	1192.1	1185.2	1166.1	1124.6	1093.5
27.5°	1138.4	1128.1	1107.3	1048.5	1012.1
30°	1079.6	1074.4	1045.0	968.9	941.2
32.5°	1024.2	1015.6	984.5	904.9	882.4
35°	967.2	960.2	913.5	844.3	823.6
37.5°	910.1	901.4	842.6	787.2	761.3
40°	853.0	842.6	778.6	728.4	700.7
42.5°	799.3	785.5	723.2	669.6	638.4
45°	742.2	726.7	664.4	609.0	584.8
47.5°	685.1	671.3	614.2	557.1	529.4
50°	624.6	612.5	560.6	503.5	474.1
52.5°	574.4	555.4	505.2	448.1	423.9
55°	515.6	500.0	453.3	399.7	378.9
57.5°	461.9	446.4	403.1	353.0	335.6
60°	411.8	389.3	353.0	309.7	295.9
62.5°	356.4	339.1	308.0	271.6	288.9
65°	306.2	288.9	261.3	266.4	221.5
67.5°	250.9	242.2	218.0	193.8	186.9
70°	204.2	193.8	185.1	159.2	152.3
72.5°	162.6	152.3	140.1	126.3	121.1
75°	122.8	114.2	107.3	102.1	112.5
77.5°	84.8	81.3	76.1	70.9	69.2
80°	55.4	53.6	51.9	50.2	48.4
82.5°	32.9	32.9	32.9	32.9	32.9
85°	17.3	19.0	20.8	22.5	24.2
87.5°	10.4	10.4	12.1	13.8	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)