

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: P560278

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-82-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560278
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-82-87-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2769.0 lumens
Efficiency: N/A
Efficacy: 64.1 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

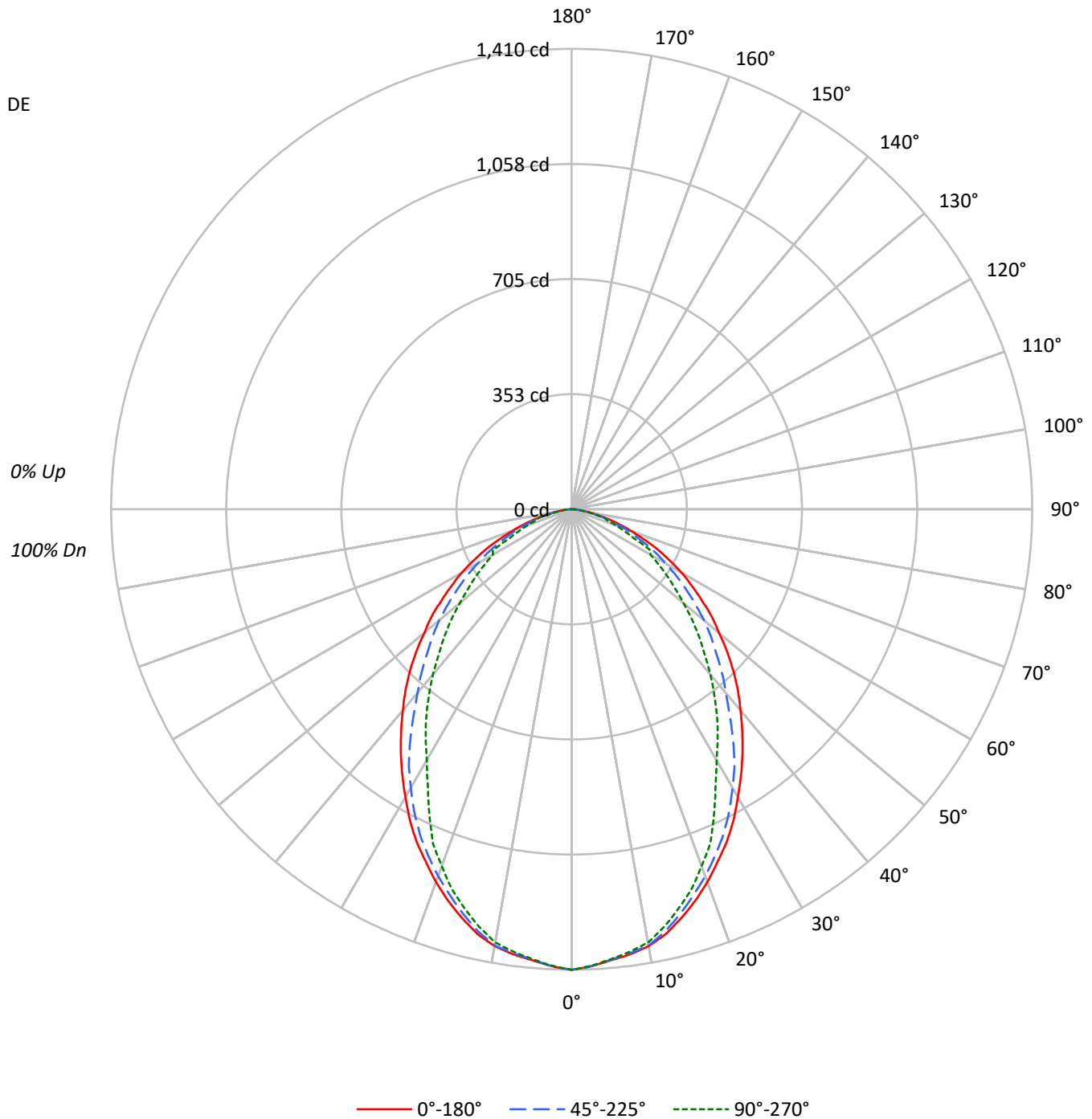
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7591	7591	7591
5°	7488	7479	7471
10°	7423	7414	7361
15°	7223	7150	7051
20°	6958	6845	6659
25°	6672	6526	6120
30°	6323	6121	5513
35°	5989	5657	5100
40°	5648	5155	4640
45°	5324	4766	4195
50°	4929	4423	3741
55°	4559	4008	3351
60°	4177	3580	3001
65°	3675	3135	2658
70°	3028	2746	2258
75°	2408	2102	2204
80°	1618	1516	1416
85°	1007	1210	1408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5324 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.3	4.7
10°-20°	360.3	13.0
20°-30°	498.9	18.0
30°-40°	531.9	19.2
40°-50°	485.3	17.5
50°-60°	380.2	13.7
60°-70°	247.8	8.9
70°-80°	109.8	4.0
80°-90°	23.6	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°	990.5	35.8
0°-40°	1522.4	55.0
0°-60°	2387.9	86.2
0°-90°	2769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2769.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1386	1384	1384	1383	1383	132
15°	1296	1296	1283	1270	1265	364
25°	1124	1117	1099	1060	1031	516
35°	912	905	861	796	776	570
45°	700	685	626	574	551	539
55°	486	471	427	377	357	436
65°	289	272	246	251	209	284
75°	116	108	101	96	106	124
85°	16	18	20	21	23	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1410.5	1410.5	1410.5	1410.5	1410.5
2.5°	1400.7	1400.7	1400.7	1399.1	1399.1
5°	1386.0	1384.4	1384.4	1382.8	1382.8
7.5°	1374.6	1373.0	1371.4	1369.7	1366.5
10°	1358.3	1358.3	1356.7	1348.5	1346.9
12.5°	1332.2	1330.6	1324.1	1312.7	1309.4
15°	1296.3	1296.3	1283.3	1270.3	1265.4
17.5°	1257.2	1255.6	1239.3	1226.2	1219.7
20°	1214.8	1211.6	1195.2	1174.1	1162.6
22.5°	1167.5	1167.5	1148.0	1120.2	1108.8
25°	1123.5	1117.0	1099.0	1059.9	1030.6
27.5°	1073.0	1063.2	1043.6	988.2	953.9
30°	1017.5	1012.6	984.9	913.2	887.1
32.5°	965.3	957.2	927.8	852.8	831.6
35°	911.5	905.0	861.0	795.7	776.2
37.5°	857.7	849.6	794.1	741.9	717.5
40°	803.9	794.1	733.8	686.5	660.4
42.5°	753.3	740.3	681.6	631.1	601.7
45°	699.5	684.9	626.2	574.0	551.2
47.5°	645.7	632.7	578.9	525.1	499.0
50°	588.7	577.2	528.3	474.5	446.8
52.5°	541.4	523.4	476.1	422.3	399.5
55°	485.9	471.3	427.2	376.7	357.1
57.5°	435.4	420.7	379.9	332.6	316.3
60°	388.1	366.9	332.6	291.9	278.8
62.5°	335.9	319.6	290.3	256.0	272.3
65°	288.6	272.3	246.2	251.1	208.7
67.5°	236.4	228.3	205.5	182.6	176.1
70°	192.4	182.6	174.5	150.0	143.5
72.5°	153.3	143.5	132.1	119.0	114.1
75°	115.8	107.6	101.1	96.2	106.0
77.5°	79.9	76.6	71.7	66.9	65.2
80°	52.2	50.5	48.9	47.3	45.7
82.5°	31.0	31.0	31.0	31.0	31.0
85°	16.3	17.9	19.6	21.2	22.8
87.5°	9.8	9.8	11.4	13.0	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)