

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: P560279

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560279
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
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3296.0 lumens
Efficiency: N/A
Efficacy: 76.3 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

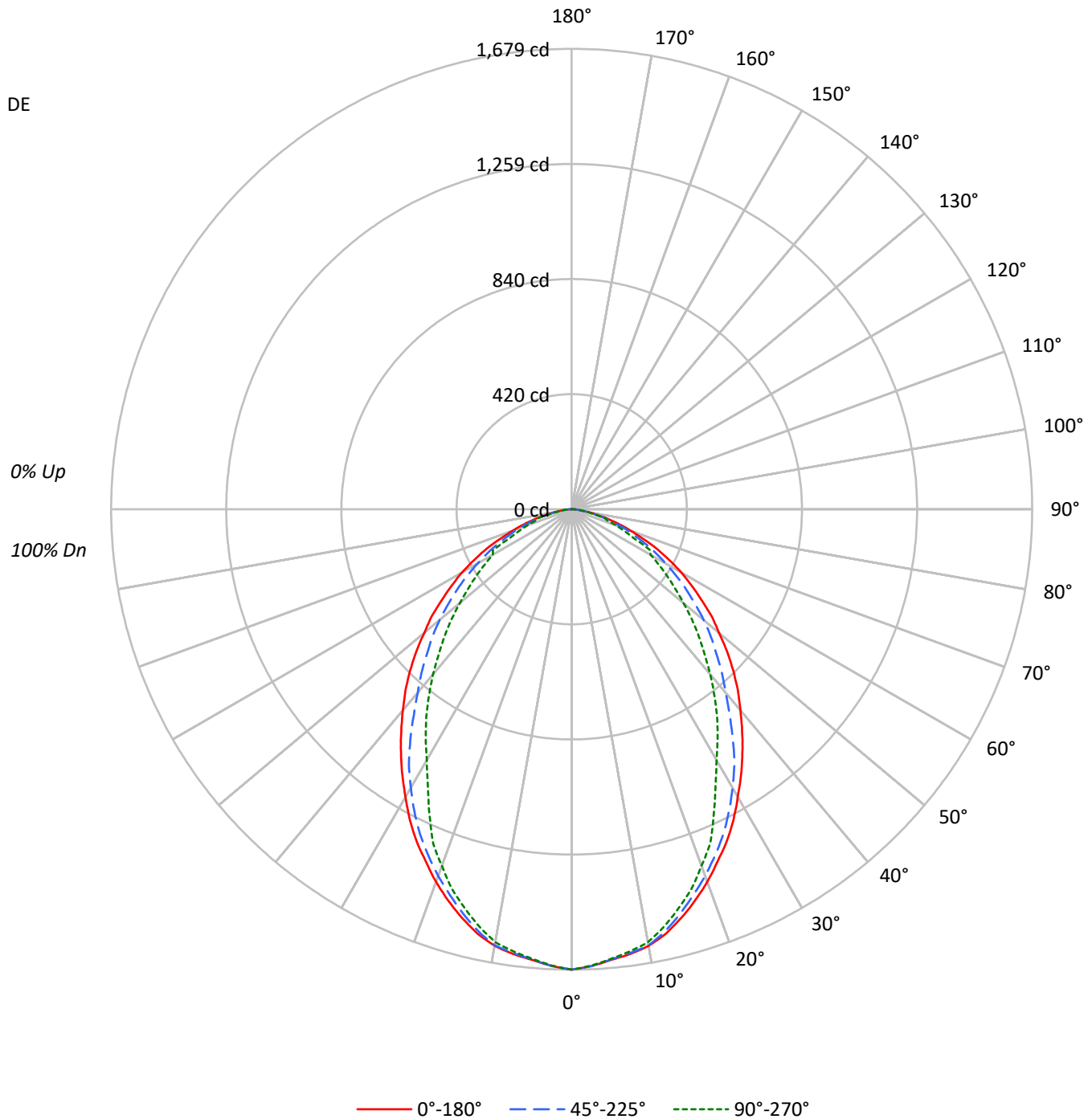
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	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°	9036	9036	9036
5°	8913	8903	8892
10°	8836	8825	8761
15°	8598	8511	8392
20°	8282	8148	7926
25°	7941	7769	7285
30°	7527	7285	6562
35°	7129	6733	6070
40°	6723	6136	5523
45°	6338	5673	4993
50°	5867	5266	4453
55°	5427	4771	3989
60°	4973	4263	3573
65°	4376	3733	3163
70°	3603	3268	2688
75°	2865	2502	2624
80°	1925	1804	1683
85°	1198	1439	1680

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6338 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.3	4.7
10°-20°	428.9	13.0
20°-30°	593.8	18.0
30°-40°	633.2	19.2
40°-50°	577.6	17.5
50°-60°	452.5	13.7
60°-70°	294.9	8.9
70°-80°	130.7	4.0
80°-90°	28.1	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°	1179.0	35.8
0°-40°	1812.2	55.0
0°-60°	2842.3	86.2
0°-90°	3296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3296.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1679	1679	1679	1679	1679	
5°	1650	1648	1648	1646	1646	157
15°	1543	1543	1528	1512	1506	434
25°	1337	1330	1308	1262	1227	614
35°	1085	1077	1025	947	924	678
45°	833	815	745	683	656	641
55°	578	561	508	448	425	519
65°	344	324	293	299	248	339
75°	138	128	120	114	126	148
85°	19	21	23	25	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1678.9	1678.9	1678.9	1678.9	1678.9
2.5°	1667.3	1667.3	1667.3	1665.4	1665.4
5°	1649.8	1647.9	1647.9	1645.9	1645.9
7.5°	1636.2	1634.3	1632.4	1630.4	1626.5
10°	1616.8	1616.8	1614.9	1605.2	1603.2
12.5°	1585.8	1583.8	1576.1	1562.5	1558.6
15°	1543.1	1543.1	1527.5	1512.0	1506.2
17.5°	1496.5	1494.5	1475.1	1459.6	1451.8
20°	1446.0	1442.1	1422.7	1397.5	1383.9
22.5°	1389.7	1389.7	1366.4	1333.4	1319.9
25°	1337.3	1329.6	1308.2	1261.6	1226.7
27.5°	1277.2	1265.5	1242.2	1176.2	1135.5
30°	1211.2	1205.3	1172.3	1086.9	1055.9
32.5°	1149.1	1139.3	1104.4	1015.1	989.9
35°	1085.0	1077.2	1024.8	947.2	923.9
37.5°	1020.9	1011.2	945.3	883.1	854.0
40°	956.9	945.3	873.4	817.1	786.1
42.5°	896.7	881.2	811.3	751.2	716.2
45°	832.7	815.2	745.3	683.2	656.0
47.5°	768.6	753.1	689.0	625.0	593.9
50°	700.7	687.1	628.9	564.8	531.8
52.5°	644.4	623.1	566.8	502.7	475.5
55°	578.4	560.9	508.5	448.4	425.1
57.5°	518.2	500.8	452.2	396.0	376.5
60°	462.0	436.7	396.0	347.4	331.9
62.5°	399.8	380.4	345.5	304.7	324.1
65°	343.6	324.1	293.1	298.9	248.4
67.5°	281.4	271.7	244.6	217.4	209.6
70°	229.0	217.4	207.7	178.6	170.8
72.5°	182.5	170.8	157.2	141.7	135.9
75°	137.8	128.1	120.3	114.5	126.2
77.5°	95.1	91.2	85.4	79.6	77.6
80°	62.1	60.2	58.2	56.3	54.3
82.5°	36.9	36.9	36.9	36.9	36.9
85°	19.4	21.4	23.3	25.2	27.2
87.5°	11.6	11.6	13.6	15.5	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)