

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: P562005

Luminaire Tested: FSR-24-4-LD4-1HI-35-UNV-82-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562005
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-24-4-LD4-1HI-35-UNV-82-86-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4314.0 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

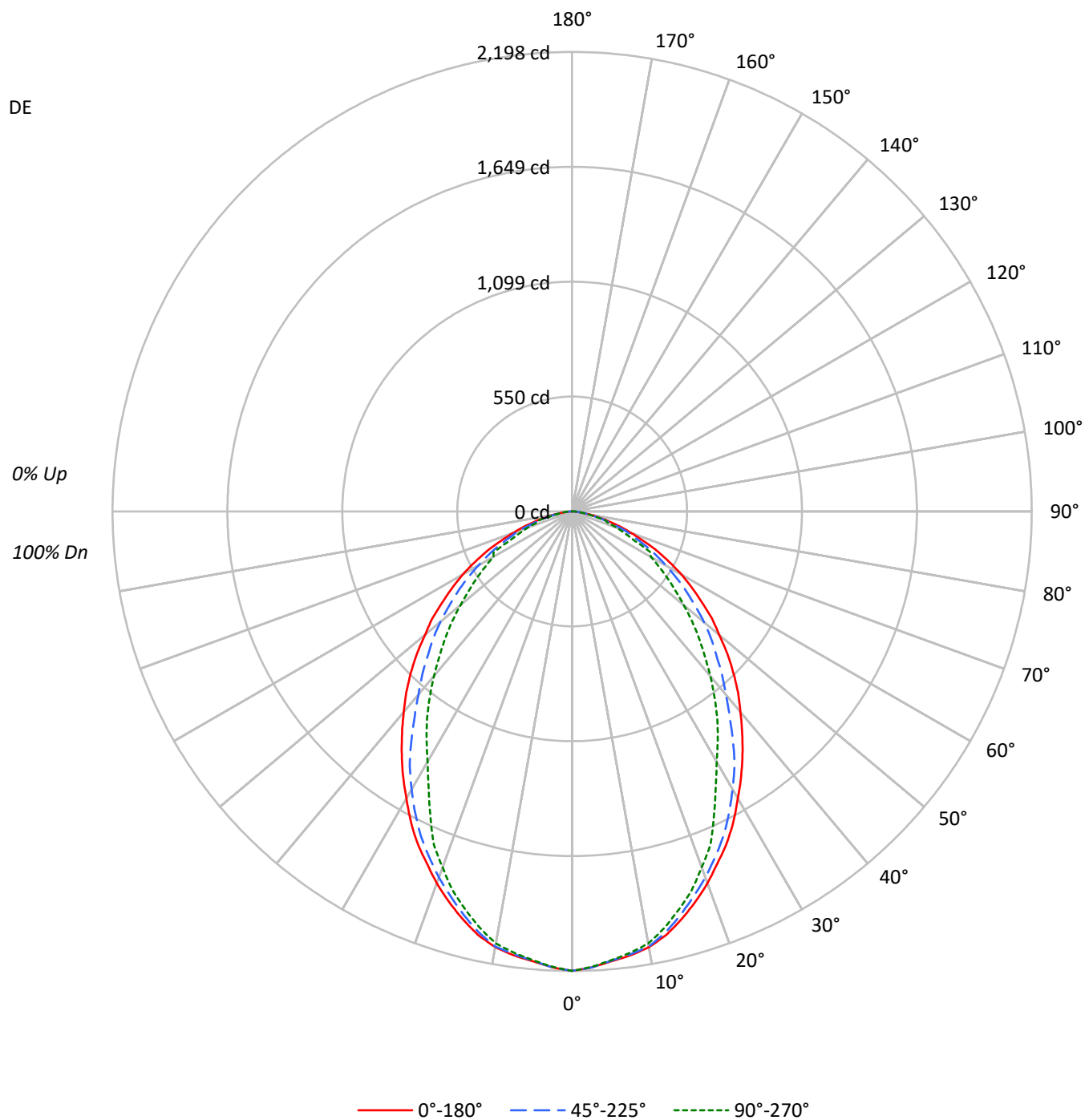
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RW	70	50	30	10		70	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
1	110	106	102	99		108	104	100	97		100	97	94		96	94	91		92	90	89
2	101	94	88	83		99	92	87	82		89	84	80		86	82	78		83	79	77
3	93	84	77	71		91	82	76	70		79	74	69		77	72	68		74	70	67
4	86	75	67	61		84	74	66	61		72	65	60		69	64	59		67	62	58
5	80	68	60	54		78	67	59	53		65	58	53		63	57	52		61	56	52
6	74	62	53	48		72	61	53	47		59	52	47		57	51	47		56	50	46
7	69	56	48	43		67	56	48	42		54	47	42		53	46	42		51	46	42
8	65	52	44	38		63	51	44	38		50	43	38		49	42	38		48	42	38
9	61	48	40	35		59	47	40	35		46	39	35		45	39	34		44	38	34
10	57	44	37	32		56	44	37	32		43	36	32		42	36	32		41	36	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2957	2957	2957
5°	2917	2913	2910
10°	2891	2888	2867
15°	2813	2785	2746
20°	2710	2666	2593
25°	2599	2542	2384
30°	2463	2384	2147
35°	2333	2203	1986
40°	2200	2008	1807
45°	2074	1856	1634
50°	1920	1723	1457
55°	1776	1561	1305
60°	1627	1395	1169
65°	1432	1221	1035
70°	1179	1069	880
75°	938	819	858
80°	630	590	551
85°	392	471	550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2074 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.6	4.7
10°-20°	561.4	13.0
20°-30°	777.2	18.0
30°-40°	828.7	19.2
40°-50°	756.0	17.5
50°-60°	592.3	13.7
60°-70°	386.0	8.9
70°-80°	171.0	4.0
80°-90°	36.7	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°	1543.2	35.8
0°-40°	2371.9	55.0
0°-60°	3720.2	86.2
0°-90°	4314.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4314.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2198	2198	2198	2198	2198	
5°	2159	2157	2157	2154	2154	205
15°	2020	2020	1999	1979	1971	568
25°	1750	1740	1712	1651	1606	804
35°	1420	1410	1341	1240	1209	888
45°	1090	1067	976	894	859	840
55°	757	734	666	587	556	679
65°	450	424	384	391	325	443
75°	180	168	158	150	165	193
85°	25	28	30	33	36	35
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2197.5	2197.5	2197.5	2197.5	2197.5
2.5°	2182.3	2182.3	2182.3	2179.7	2179.7
5°	2159.4	2156.8	2156.8	2154.3	2154.3
7.5°	2141.6	2139.1	2136.5	2134.0	2128.9
10°	2116.2	2116.2	2113.7	2101.0	2098.4
12.5°	2075.6	2073.0	2062.8	2045.1	2040.0
15°	2019.7	2019.7	1999.3	1979.0	1971.4
17.5°	1958.7	1956.2	1930.7	1910.4	1900.3
20°	1892.6	1887.6	1862.2	1829.1	1811.3
22.5°	1819.0	1819.0	1788.5	1745.3	1727.5
25°	1750.4	1740.2	1712.3	1651.3	1605.6
27.5°	1671.6	1656.4	1625.9	1539.5	1486.2
30°	1585.2	1577.6	1534.4	1422.7	1382.0
32.5°	1503.9	1491.2	1445.5	1328.7	1295.6
35°	1420.1	1410.0	1341.4	1239.7	1209.3
37.5°	1336.3	1323.6	1237.2	1155.9	1117.8
40°	1252.4	1237.2	1143.2	1069.5	1028.9
42.5°	1173.7	1153.4	1061.9	983.2	937.4
45°	1089.9	1067.0	975.5	894.2	858.7
47.5°	1006.0	985.7	901.9	818.0	777.4
50°	917.1	899.3	823.1	739.3	696.1
52.5°	843.4	815.5	741.8	658.0	622.4
55°	757.1	734.2	665.6	586.8	556.4
57.5°	678.3	655.4	591.9	518.3	492.8
60°	604.6	571.6	518.3	454.7	434.4
62.5°	523.3	497.9	452.2	398.9	424.3
65°	449.7	424.3	383.6	391.2	325.2
67.5°	368.4	355.7	320.1	284.5	274.4
70°	299.8	284.5	271.8	233.7	223.6
72.5°	238.8	223.6	205.8	185.5	177.8
75°	180.4	167.7	157.5	149.9	165.1
77.5°	124.5	119.4	111.8	104.2	101.6
80°	81.3	78.8	76.2	73.7	71.1
82.5°	48.3	48.3	48.3	48.3	48.3
85°	25.4	27.9	30.5	33.0	35.6
87.5°	15.2	15.2	17.8	20.3	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)