

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: P562047

Luminaire Tested: FSR-24-4-LD4-1HI-40-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562047
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-40-UNV-80-97-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4620.0 lumens
Efficiency: N/A
Efficacy: 106.9 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

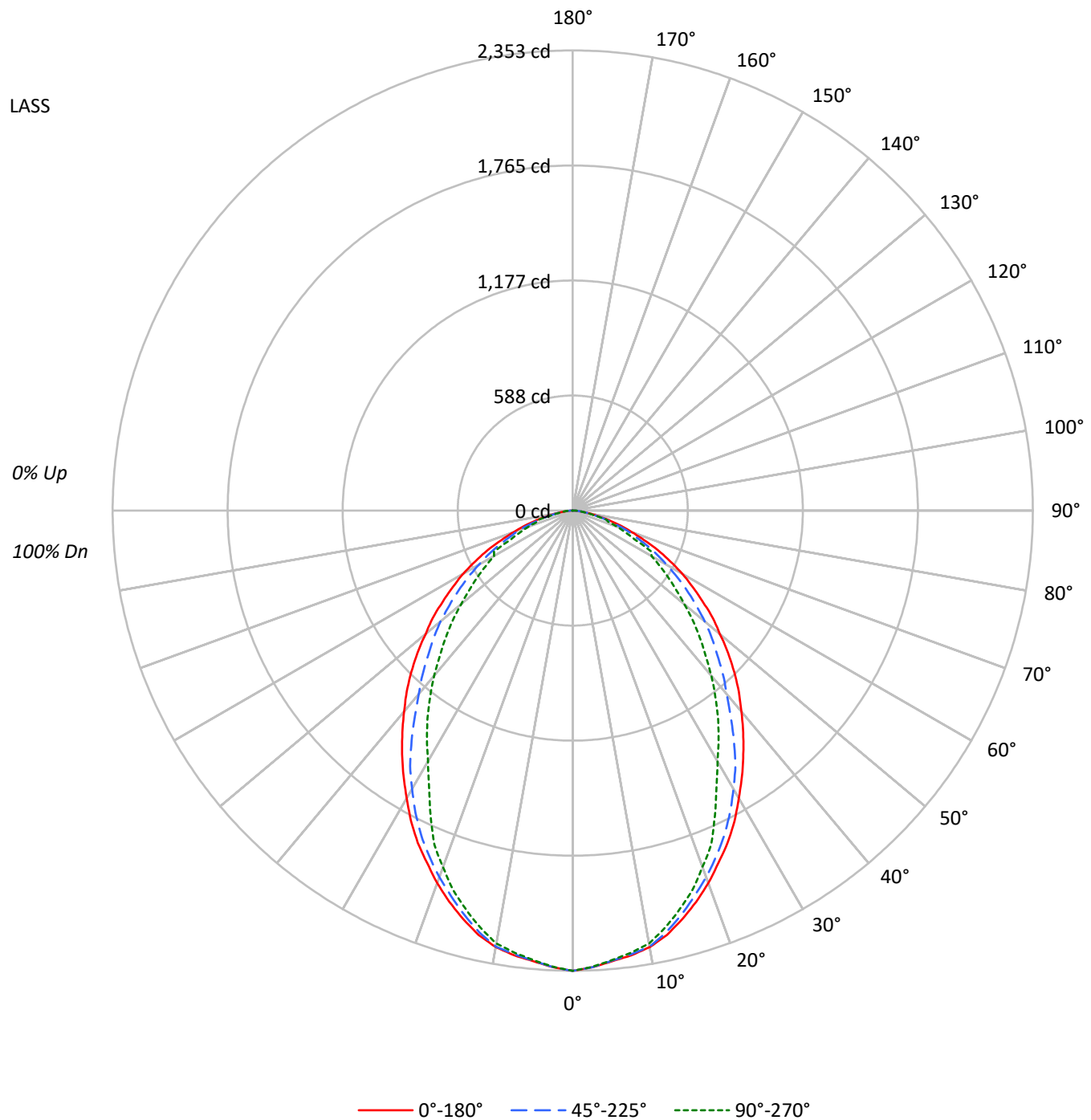
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3166	3166	3166
5°	3123	3120	3116
10°	3096	3093	3070
15°	3013	2983	2941
20°	2902	2855	2777
25°	2783	2722	2553
30°	2638	2553	2299
35°	2498	2360	2127
40°	2356	2150	1935
45°	2221	1988	1750
50°	2056	1845	1560
55°	1902	1672	1398
60°	1742	1493	1252
65°	1533	1308	1109
70°	1263	1145	942
75°	1004	877	919
80°	675	632	590
85°	420	503	588

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2221 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.1	4.7
10°-20°	601.2	13.0
20°-30°	832.3	18.0
30°-40°	887.5	19.2
40°-50°	809.7	17.5
50°-60°	634.3	13.7
60°-70°	413.4	8.9
70°-80°	183.2	4.0
80°-90°	39.3	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°	1652.6	35.8
0°-40°	2540.1	55.0
0°-60°	3984.1	86.2
0°-90°	4620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2353	2353	2353	2353	2353	
5°	2313	2310	2310	2307	2307	220
15°	2163	2163	2141	2119	2111	608
25°	1874	1864	1834	1768	1720	861
35°	1521	1510	1436	1328	1295	951
45°	1167	1143	1045	958	920	899
55°	811	786	713	628	596	727
65°	482	454	411	419	348	475
75°	193	180	169	160	177	207
85°	27	30	33	35	38	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2353.4	2353.4	2353.4	2353.4	2353.4
2.5°	2337.0	2337.0	2337.0	2334.3	2334.3
5°	2312.6	2309.8	2309.8	2307.1	2307.1
7.5°	2293.5	2290.8	2288.1	2285.3	2279.9
10°	2266.3	2266.3	2263.6	2250.0	2247.3
12.5°	2222.8	2220.1	2209.2	2190.1	2184.7
15°	2162.9	2162.9	2141.2	2119.4	2111.2
17.5°	2097.6	2094.9	2067.7	2045.9	2035.0
20°	2026.9	2021.4	1994.2	1958.9	1939.8
22.5°	1948.0	1948.0	1915.3	1869.1	1850.0
25°	1874.5	1863.6	1833.7	1768.4	1719.5
27.5°	1790.2	1773.9	1741.2	1648.7	1591.6
30°	1697.7	1689.5	1643.3	1523.6	1480.0
32.5°	1610.6	1597.0	1548.1	1422.9	1387.5
35°	1520.8	1510.0	1436.5	1327.7	1295.0
37.5°	1431.1	1417.5	1325.0	1237.9	1197.1
40°	1341.3	1325.0	1224.3	1145.4	1101.9
42.5°	1256.9	1235.2	1137.2	1052.9	1003.9
45°	1167.2	1142.7	1044.7	957.7	919.6
47.5°	1077.4	1055.6	965.8	876.1	832.5
50°	982.2	963.1	881.5	791.7	745.5
52.5°	903.3	873.3	794.4	704.6	666.6
55°	810.8	786.3	712.8	628.5	595.8
57.5°	726.4	701.9	633.9	555.0	527.8
60°	647.5	612.1	555.0	487.0	465.2
62.5°	560.5	533.2	484.3	427.1	454.3
65°	481.6	454.3	410.8	419.0	348.2
67.5°	394.5	380.9	342.8	304.7	293.8
70°	321.0	304.7	291.1	250.3	239.4
72.5°	255.7	239.4	220.4	198.6	190.4
75°	193.2	179.6	168.7	160.5	176.8
77.5°	133.3	127.9	119.7	111.5	108.8
80°	87.1	84.3	81.6	78.9	76.2
82.5°	51.7	51.7	51.7	51.7	51.7
85°	27.2	29.9	32.6	35.4	38.1
87.5°	16.3	16.3	19.0	21.8	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)