

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: P562363

Luminaire Tested: FSR-24-4-LD4-1STD-40-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562363
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-LD4-1STD-40-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 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: 3951.0 lumens
Efficiency: N/A
Efficacy: 118.6 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

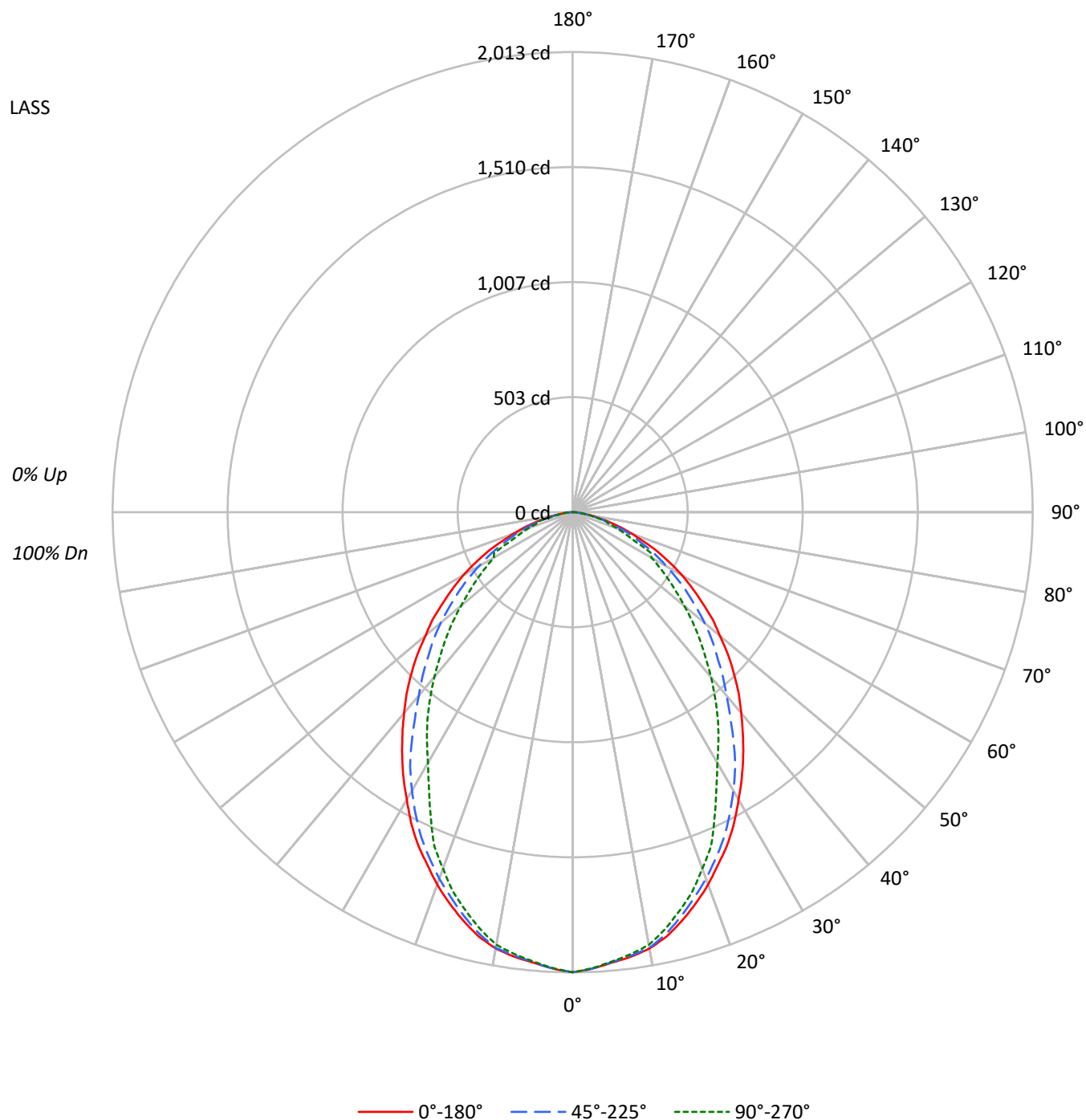
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2708	2708	2708
5°	2671	2668	2665
10°	2648	2645	2626
15°	2577	2551	2515
20°	2482	2442	2375
25°	2380	2328	2183
30°	2256	2183	1966
35°	2136	2018	1819
40°	2015	1839	1655
45°	1899	1700	1496
50°	1758	1578	1334
55°	1627	1430	1195
60°	1490	1277	1071
65°	1311	1118	948
70°	1080	980	805
75°	859	750	786
80°	577	541	504
85°	360	431	503

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1899 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.3	4.7
10°-20°	514.2	13.0
20°-30°	711.8	18.0
30°-40°	759.0	19.2
40°-50°	692.4	17.5
50°-60°	542.5	13.7
60°-70°	353.6	8.9
70°-80°	156.6	4.0
80°-90°	33.6	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°	1413.3	35.8
0°-40°	2172.3	55.0
0°-60°	3407.2	86.2
0°-90°	3951.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3951.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2013	2013	2013	2013	2013	
5°	1978	1975	1975	1973	1973	188
15°	1850	1850	1831	1812	1806	520
25°	1603	1594	1568	1512	1470	736
35°	1301	1291	1228	1135	1108	813
45°	998	977	893	819	786	769
55°	693	672	610	538	510	622
65°	412	389	351	358	298	406
75°	165	154	144	137	151	177
85°	23	26	28	30	33	32
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2012.6	2012.6	2012.6	2012.6	2012.6
2.5°	1998.6	1998.6	1998.6	1996.3	1996.3
5°	1977.7	1975.4	1975.4	1973.0	1973.0
7.5°	1961.4	1959.1	1956.7	1954.4	1949.8
10°	1938.1	1938.1	1935.8	1924.2	1921.8
12.5°	1900.9	1898.6	1889.3	1873.0	1868.3
15°	1849.7	1849.7	1831.1	1812.5	1805.5
17.5°	1793.9	1791.6	1768.3	1749.7	1740.4
20°	1733.4	1728.7	1705.5	1675.2	1658.9
22.5°	1665.9	1665.9	1638.0	1598.4	1582.1
25°	1603.1	1593.8	1568.2	1512.3	1470.5
27.5°	1531.0	1517.0	1489.1	1410.0	1361.1
30°	1451.9	1444.9	1405.3	1302.9	1265.7
32.5°	1377.4	1365.8	1323.9	1216.9	1186.6
35°	1300.6	1291.3	1228.5	1135.4	1107.5
37.5°	1223.8	1212.2	1133.1	1058.6	1023.7
40°	1147.1	1133.1	1047.0	979.5	942.3
42.5°	1074.9	1056.3	972.6	900.4	858.5
45°	998.1	977.2	893.4	819.0	786.4
47.5°	921.4	902.8	826.0	749.2	712.0
50°	839.9	823.6	753.8	677.1	637.5
52.5°	772.5	746.9	679.4	602.6	570.0
55°	693.4	672.4	609.6	537.5	509.5
57.5°	621.2	600.3	542.1	474.6	451.4
60°	553.8	523.5	474.6	416.5	397.9
62.5°	479.3	456.0	414.2	365.3	388.6
65°	411.8	388.6	351.3	358.3	297.8
67.5°	337.4	325.7	293.2	260.6	251.3
70°	274.5	260.6	249.0	214.1	204.7
72.5°	218.7	204.7	188.5	169.8	162.9
75°	165.2	153.6	144.3	137.3	151.2
77.5°	114.0	109.4	102.4	95.4	93.1
80°	74.5	72.1	69.8	67.5	65.1
82.5°	44.2	44.2	44.2	44.2	44.2
85°	23.3	25.6	27.9	30.2	32.6
87.5°	14.0	14.0	16.3	18.6	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)