

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: P560253

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560253
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-80-96-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 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: 3746.0 lumens
Efficiency: N/A
Efficacy: 86.7 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

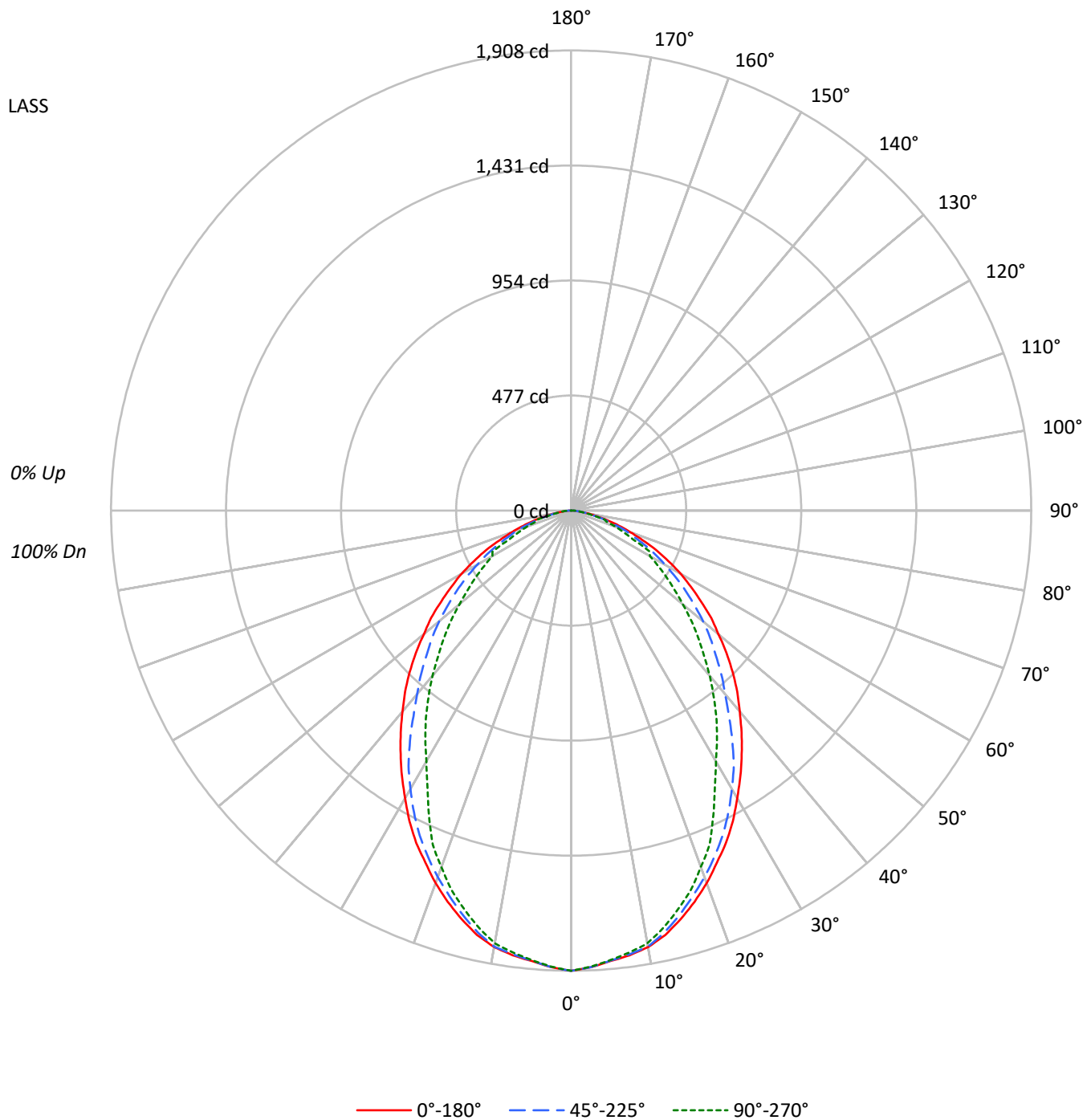
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	10270	10270	10270
5°	10130	10118	10106
10°	10042	10030	9958
15°	9771	9673	9538
20°	9412	9261	9009
25°	9026	8829	8279
30°	8554	8280	7457
35°	8102	7653	6899
40°	7640	6974	6277
45°	7203	6447	5675
50°	6668	5984	5061
55°	6168	5423	4533
60°	5651	4844	4060
65°	4973	4242	3596
70°	4096	3714	3054
75°	3256	2845	2982
80°	2188	2052	1915
85°	1365	1636	1908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7203 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.6	4.7
10°-20°	487.5	13.0
20°-30°	674.9	18.0
30°-40°	719.6	19.2
40°-50°	656.5	17.5
50°-60°	514.3	13.7
60°-70°	335.2	8.9
70°-80°	148.5	4.0
80°-90°	31.9	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°	1340.0	35.8
0°-40°	2059.6	55.0
0°-60°	3230.4	86.2
0°-90°	3746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3746.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1875	1873	1873	1871	1871	178
15°	1754	1754	1736	1718	1712	493
25°	1520	1511	1487	1434	1394	698
35°	1233	1224	1165	1076	1050	771
45°	946	926	847	776	746	729
55°	657	638	578	510	483	590
65°	390	368	333	340	282	385
75°	157	146	137	130	143	168
85°	22	24	26	29	31	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1908.2	1908.2	1908.2	1908.2	1908.2
2.5°	1894.9	1894.9	1894.9	1892.7	1892.7
5°	1875.1	1872.9	1872.9	1870.7	1870.7
7.5°	1859.6	1857.4	1855.2	1853.0	1848.6
10°	1837.6	1837.6	1835.4	1824.3	1822.1
12.5°	1802.3	1800.1	1791.2	1775.8	1771.4
15°	1753.7	1753.7	1736.1	1718.4	1711.8
17.5°	1700.8	1698.6	1676.5	1658.9	1650.1
20°	1643.4	1639.0	1617.0	1588.3	1572.9
22.5°	1579.5	1579.5	1553.0	1515.5	1500.1
25°	1519.9	1511.1	1486.8	1433.9	1394.2
27.5°	1451.5	1438.3	1411.8	1336.8	1290.5
30°	1376.5	1369.9	1332.4	1235.3	1200.0
32.5°	1305.9	1294.9	1255.2	1153.7	1125.0
35°	1233.1	1224.3	1164.8	1076.5	1050.0
37.5°	1160.3	1149.3	1074.3	1003.7	970.6
40°	1087.5	1074.3	992.7	928.7	893.4
42.5°	1019.2	1001.5	922.1	853.7	814.0
45°	946.4	926.5	847.1	776.5	745.6
47.5°	873.6	855.9	783.1	710.3	675.0
50°	796.4	780.9	714.7	641.9	604.4
52.5°	732.4	708.1	644.1	571.3	540.5
55°	657.4	637.5	578.0	509.6	483.1
57.5°	589.0	569.1	514.0	450.0	428.0
60°	525.0	496.3	450.0	394.9	377.2
62.5°	454.4	432.4	392.7	346.3	368.4
65°	390.5	368.4	333.1	339.7	282.4
67.5°	319.9	308.8	278.0	247.1	238.2
70°	260.3	247.1	236.0	202.9	194.1
72.5°	207.4	194.1	178.7	161.0	154.4
75°	156.6	145.6	136.8	130.2	143.4
77.5°	108.1	103.7	97.1	90.4	88.2
80°	70.6	68.4	66.2	64.0	61.8
82.5°	41.9	41.9	41.9	41.9	41.9
85°	22.1	24.3	26.5	28.7	30.9
87.5°	13.2	13.2	15.4	17.6	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)