

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: P562032

Luminaire Tested: FSR-24-4-LD4-1HI-40-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562032
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-80-84-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4062.0 lumens
Efficiency: N/A
Efficacy: 94.0 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

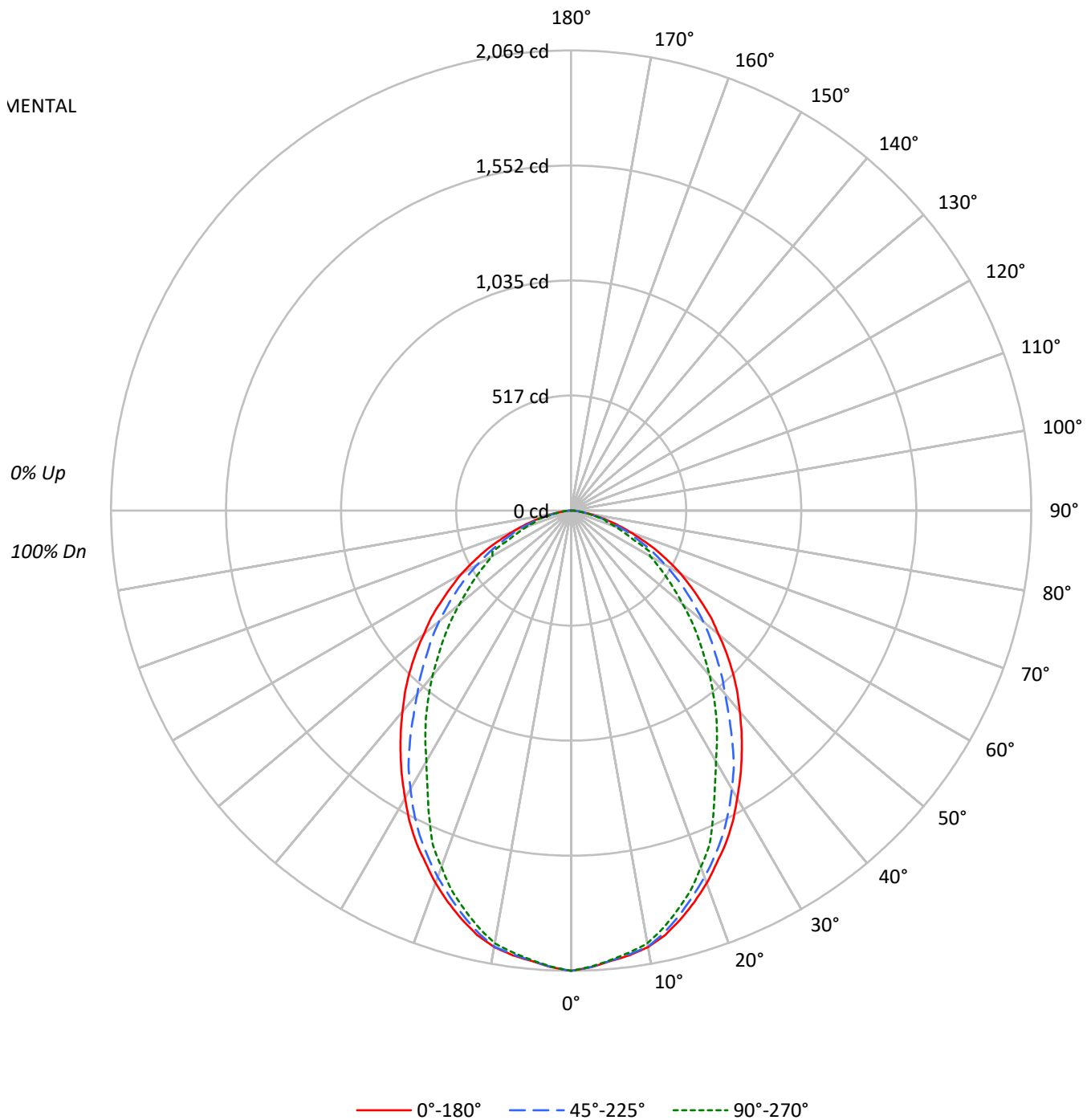
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2784	2784	2784
5°	2746	2743	2740
10°	2722	2719	2699
15°	2649	2622	2586
20°	2552	2511	2442
25°	2447	2393	2244
30°	2319	2245	2022
35°	2196	2075	1870
40°	2071	1891	1702
45°	1953	1748	1538
50°	1807	1622	1372
55°	1672	1470	1229
60°	1532	1313	1101
65°	1348	1150	975
70°	1111	1007	828
75°	883	771	808
80°	593	556	519
85°	369	443	517

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1953 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.6	4.7
10°-20°	528.6	13.0
20°-30°	731.8	18.0
30°-40°	780.3	19.2
40°-50°	711.9	17.5
50°-60°	557.7	13.7
60°-70°	363.5	8.9
70°-80°	161.0	4.0
80°-90°	34.6	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°	1453.0	35.8
0°-40°	2233.3	55.0
0°-60°	3502.9	86.2
0°-90°	4062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2069	2069	2069	2069	2069	
5°	2033	2031	2031	2028	2028	193
15°	1902	1902	1882	1863	1856	535
25°	1648	1639	1612	1555	1512	757
35°	1337	1328	1263	1167	1139	836
45°	1026	1005	918	842	808	790
55°	713	691	627	553	524	639
65°	423	400	361	368	306	417
75°	170	158	148	141	156	182
85°	24	26	29	31	34	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2069.1	2069.1	2069.1	2069.1	2069.1
2.5°	2054.8	2054.8	2054.8	2052.4	2052.4
5°	2033.2	2030.9	2030.9	2028.5	2028.5
7.5°	2016.5	2014.1	2011.7	2009.3	2004.5
10°	1992.6	1992.6	1990.2	1978.2	1975.8
12.5°	1954.3	1951.9	1942.3	1925.6	1920.8
15°	1901.7	1901.7	1882.5	1863.4	1856.2
17.5°	1844.3	1841.9	1818.0	1798.8	1789.3
20°	1782.1	1777.3	1753.4	1722.3	1705.5
22.5°	1712.7	1712.7	1684.0	1643.3	1626.6
25°	1648.1	1638.6	1612.2	1554.8	1511.8
27.5°	1574.0	1559.6	1530.9	1449.6	1399.4
30°	1492.6	1485.5	1444.8	1339.6	1301.3
32.5°	1416.1	1404.1	1361.1	1251.0	1219.9
35°	1337.2	1327.6	1263.0	1167.3	1138.6
37.5°	1258.2	1246.3	1164.9	1088.4	1052.5
40°	1179.3	1164.9	1076.4	1007.1	968.8
42.5°	1105.1	1086.0	999.9	925.7	882.7
45°	1026.2	1004.7	918.5	842.0	808.5
47.5°	947.3	928.1	849.2	770.2	732.0
50°	863.5	846.8	775.0	696.1	655.4
52.5°	794.2	767.9	698.5	619.5	586.1
55°	712.8	691.3	626.7	552.6	523.9
57.5°	638.7	617.2	557.3	488.0	464.1
60°	569.3	538.2	488.0	428.2	409.0
62.5°	492.8	468.8	425.8	375.6	399.5
65°	423.4	399.5	361.2	368.4	306.2
67.5°	346.8	334.9	301.4	267.9	258.3
70°	282.3	267.9	256.0	220.1	210.5
72.5°	224.9	210.5	193.8	174.6	167.4
75°	169.8	157.9	148.3	141.1	155.5
77.5°	117.2	112.4	105.3	98.1	95.7
80°	76.5	74.2	71.8	69.4	67.0
82.5°	45.4	45.4	45.4	45.4	45.4
85°	23.9	26.3	28.7	31.1	33.5
87.5°	14.4	14.4	16.7	19.1	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)