

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: P561975

Luminaire Tested: FSR-24-4-LD4-1HI-35-UNV-80-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561975
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-80-87-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4488.0 lumens
Efficiency: N/A
Efficacy: 103.9 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

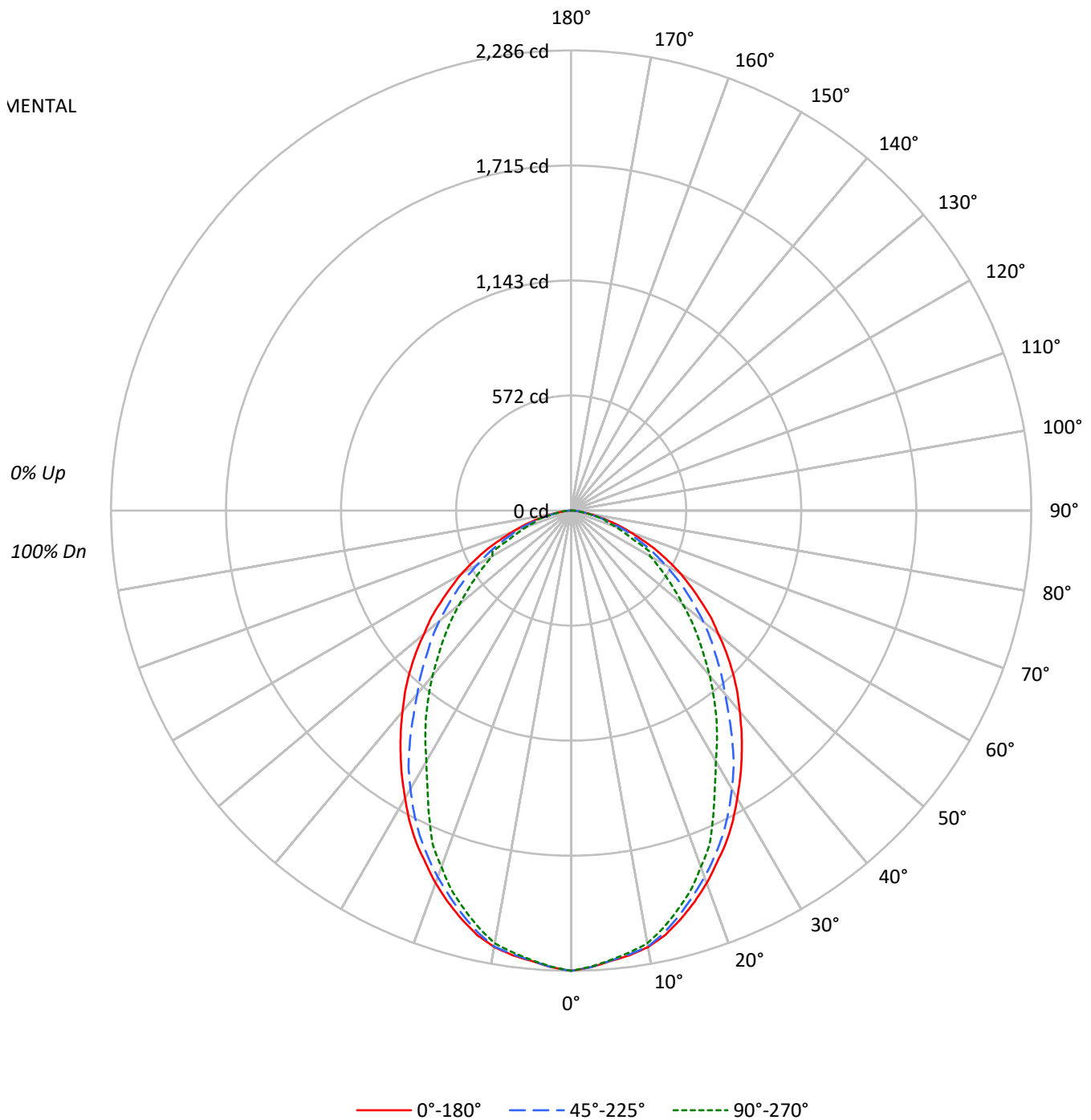
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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°	3076	3076	3076
5°	3034	3031	3027
10°	3008	3004	2983
15°	2927	2897	2857
20°	2819	2774	2698
25°	2703	2644	2480
30°	2562	2480	2234
35°	2427	2292	2066
40°	2289	2089	1880
45°	2157	1931	1700
50°	1997	1792	1516
55°	1848	1624	1358
60°	1693	1451	1216
65°	1489	1271	1077
70°	1227	1113	915
75°	975	852	893
80°	656	614	573
85°	408	489	571

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2157 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.8	4.7
10°-20°	584.0	13.0
20°-30°	808.6	18.0
30°-40°	862.2	19.2
40°-50°	786.5	17.5
50°-60°	616.2	13.7
60°-70°	401.6	8.9
70°-80°	177.9	4.0
80°-90°	38.2	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°	1605.4	35.8
0°-40°	2467.5	55.0
0°-60°	3870.3	86.2
0°-90°	4488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2286	2286	2286	2286	2286	
5°	2246	2244	2244	2241	2241	213
15°	2101	2101	2080	2059	2051	591
25°	1821	1810	1781	1718	1670	836
35°	1477	1467	1396	1290	1258	924
45°	1134	1110	1015	930	893	873
55°	788	764	692	610	579	706
65°	468	441	399	407	338	461
75°	188	174	164	156	172	201
85°	26	29	32	34	37	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2286.1	2286.1	2286.1	2286.1	2286.1
2.5°	2270.3	2270.3	2270.3	2267.6	2267.6
5°	2246.5	2243.8	2243.8	2241.2	2241.2
7.5°	2228.0	2225.3	2222.7	2220.1	2214.8
10°	2201.6	2201.6	2198.9	2185.7	2183.1
12.5°	2159.3	2156.6	2146.1	2127.6	2122.3
15°	2101.1	2101.1	2080.0	2058.8	2050.9
17.5°	2037.7	2035.0	2008.6	1987.5	1976.9
20°	1969.0	1963.7	1937.3	1902.9	1884.4
22.5°	1892.3	1892.3	1860.6	1815.7	1797.2
25°	1821.0	1810.4	1781.3	1717.9	1670.3
27.5°	1739.0	1723.2	1691.5	1601.6	1546.1
30°	1649.2	1641.3	1596.3	1480.0	1437.7
32.5°	1564.6	1551.4	1503.8	1382.2	1347.9
35°	1477.4	1466.8	1395.5	1289.7	1258.0
37.5°	1390.2	1377.0	1287.1	1202.5	1162.9
40°	1303.0	1287.1	1189.3	1112.7	1070.4
42.5°	1221.0	1199.9	1104.7	1022.8	975.2
45°	1133.8	1110.0	1014.9	930.3	893.3
47.5°	1046.6	1025.5	938.2	851.0	808.7
50°	954.1	935.6	856.3	769.1	724.2
52.5°	877.4	848.4	771.7	684.5	647.5
55°	787.6	763.8	692.4	610.5	578.8
57.5°	705.7	681.9	615.8	539.2	512.7
60°	629.0	594.7	539.2	473.1	451.9
62.5°	544.4	518.0	470.4	414.9	441.4
65°	467.8	441.4	399.1	407.0	338.3
67.5°	383.2	370.0	333.0	296.0	285.4
70°	311.9	296.0	282.8	243.1	232.6
72.5°	248.4	232.6	214.1	192.9	185.0
75°	187.6	174.4	163.9	155.9	171.8
77.5°	129.5	124.2	116.3	108.4	105.7
80°	84.6	81.9	79.3	76.6	74.0
82.5°	50.2	50.2	50.2	50.2	50.2
85°	26.4	29.1	31.7	34.4	37.0
87.5°	15.9	15.9	18.5	21.1	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)