

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: P562037

Luminaire Tested: FSR-24-4-LD4-1HI-40-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562037
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-80-86-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

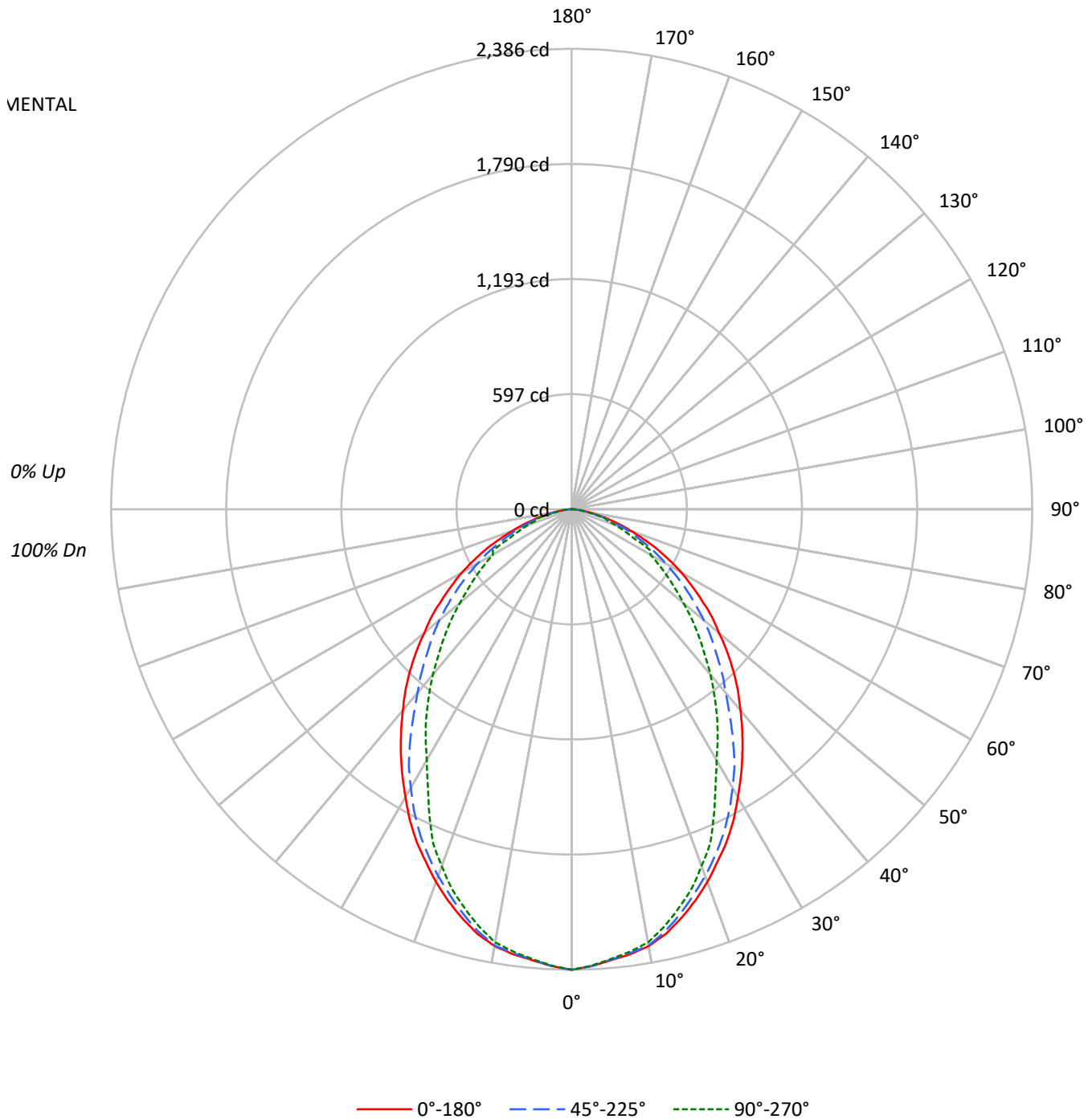
Lumens per Lamp: N/A
Luminaire Lumens: 4685.0 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3211	3211	3211
5°	3167	3164	3160
10°	3140	3136	3114
15°	3055	3025	2982
20°	2943	2896	2817
25°	2822	2761	2589
30°	2675	2589	2332
35°	2533	2393	2157
40°	2389	2181	1963
45°	2252	2016	1774
50°	2085	1871	1582
55°	1929	1696	1417
60°	1767	1514	1270
65°	1555	1326	1124
70°	1281	1161	955
75°	1018	889	932
80°	684	642	599
85°	426	511	596

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2252 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.1	4.7
10°-20°	609.7	13.0
20°-30°	844.0	18.0
30°-40°	900.0	19.2
40°-50°	821.1	17.5
50°-60°	643.2	13.7
60°-70°	419.2	8.9
70°-80°	185.7	4.0
80°-90°	39.9	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°	1675.9	35.8
0°-40°	2575.9	55.0
0°-60°	4040.1	86.2
0°-90°	4685.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4685.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2386	2386	2386	2386	2386	
5°	2345	2342	2342	2340	2340	223
15°	2193	2193	2171	2149	2141	617
25°	1901	1890	1860	1793	1744	873
35°	1542	1531	1457	1346	1313	964
45°	1184	1159	1059	971	932	912
55°	822	797	723	637	604	737
65°	488	461	417	425	353	481
75°	196	182	171	163	179	210
85°	28	30	33	36	39	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2386.5	2386.5	2386.5	2386.5	2386.5
2.5°	2369.9	2369.9	2369.9	2367.2	2367.2
5°	2345.1	2342.3	2342.3	2339.6	2339.6
7.5°	2325.8	2323.0	2320.3	2317.5	2312.0
10°	2298.2	2298.2	2295.4	2281.6	2278.9
12.5°	2254.0	2251.3	2240.3	2220.9	2215.4
15°	2193.4	2193.4	2171.3	2149.2	2140.9
17.5°	2127.1	2124.4	2096.8	2074.7	2063.7
20°	2055.4	2049.9	2022.3	1986.4	1967.1
22.5°	1975.4	1975.4	1942.3	1895.4	1876.1
25°	1900.9	1889.9	1859.5	1793.3	1743.6
27.5°	1815.4	1798.8	1765.7	1671.9	1614.0
30°	1721.6	1713.3	1666.4	1545.0	1500.9
32.5°	1633.3	1619.5	1569.8	1442.9	1407.1
35°	1542.2	1531.2	1456.7	1346.4	1313.3
37.5°	1451.2	1437.4	1343.6	1255.3	1213.9
40°	1360.2	1343.6	1241.5	1161.5	1117.4
42.5°	1274.6	1252.6	1153.2	1067.7	1018.0
45°	1183.6	1158.8	1059.4	971.1	932.5
47.5°	1092.5	1070.5	979.4	888.4	844.2
50°	996.0	976.7	893.9	802.8	755.9
52.5°	916.0	885.6	805.6	714.6	675.9
55°	822.2	797.3	722.8	637.3	604.2
57.5°	736.6	711.8	642.8	562.8	535.2
60°	656.6	620.8	562.8	493.8	471.8
62.5°	568.3	540.8	491.1	433.2	460.7
65°	488.3	460.7	416.6	424.9	353.1
67.5°	400.0	386.3	347.6	309.0	298.0
70°	325.6	309.0	295.2	253.8	242.8
72.5°	259.3	242.8	223.5	201.4	193.1
75°	195.9	182.1	171.1	162.8	179.3
77.5°	135.2	129.7	121.4	113.1	110.4
80°	88.3	85.5	82.8	80.0	77.3
82.5°	52.4	52.4	52.4	52.4	52.4
85°	27.6	30.3	33.1	35.9	38.6
87.5°	16.6	16.6	19.3	22.1	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)