

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P184182

Luminaire Tested: **24FR-72-HP-UNV-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27148)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24FR-72-HP-UNV-L850-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8056.7 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

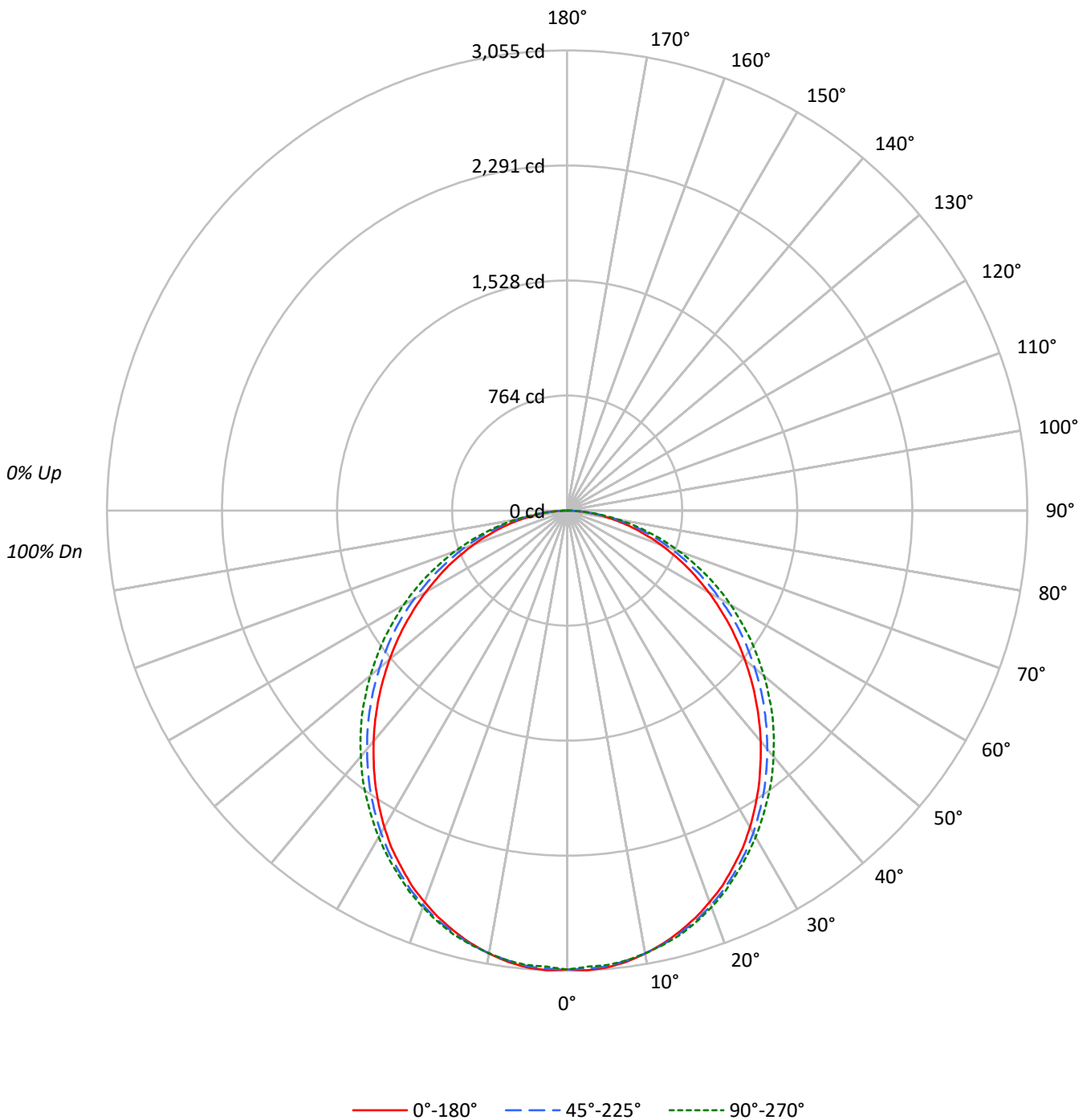
Input Watts (W): 63.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4100	4100	4100
5°	4112	4101	4091
10°	4081	4077	4077
15°	4029	4043	4058
20°	3960	3994	4013
25°	3872	3923	3950
30°	3771	3840	3889
35°	3646	3741	3818
40°	3511	3631	3742
45°	3369	3519	3669
50°	3222	3404	3574
55°	3075	3290	3482
60°	2919	3153	3379
65°	2768	3011	3262
70°	2594	2873	3121
75°	2403	2717	2936
80°	2198	2524	2686
85°	1987	2149	2149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.8	3.6
10°-20°	817.4	10.1
20°-30°	1213.4	15.1
30°-40°	1420.0	17.6
40°-50°	1425.2	17.7
50°-60°	1248.4	15.5
60°-70°	937.0	11.6
70°-80°	550.6	6.8
80°-90°	157.0	1.9
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°	2318.5	28.8
0°-40°	3738.5	46.4
0°-60°	6412.0	79.6
0°-90°	8056.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8056.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3047	3047	3047	3047	3047	
5°	3044	3024	3037	3031	3029	289
15°	2892	2882	2903	2910	2913	815
25°	2608	2608	2643	2650	2661	1202
35°	2220	2228	2278	2306	2325	1387
45°	1770	1792	1849	1899	1928	1366
55°	1311	1334	1403	1453	1484	1172
65°	870	893	946	996	1024	860
75°	462	489	523	549	565	491
85°	129	137	139	139	139	144
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3047.1	3047.1	3047.1	3047.1	3047.1
2.5°	3055.0	3036.6	3044.5	3041.9	3031.4
5°	3044.5	3023.5	3036.6	3031.4	3028.7
7.5°	3020.9	2999.8	3013.0	3013.0	3013.0
10°	2986.7	2970.9	2984.1	2984.1	2984.1
12.5°	2944.7	2931.5	2949.9	2952.6	2952.6
15°	2892.1	2881.6	2902.6	2910.5	2913.2
17.5°	2834.3	2826.5	2852.7	2860.6	2860.6
20°	2766.0	2760.8	2789.7	2797.6	2802.8
22.5°	2695.1	2687.2	2721.4	2726.6	2737.2
25°	2608.4	2608.4	2642.6	2650.5	2661.0
27.5°	2524.4	2521.8	2561.2	2574.3	2584.8
30°	2427.2	2427.2	2471.8	2490.2	2503.4
32.5°	2324.7	2332.6	2374.7	2398.3	2414.1
35°	2219.7	2227.5	2277.5	2306.4	2324.7
37.5°	2109.3	2122.5	2172.4	2209.2	2232.8
40°	1999.0	2017.4	2067.3	2109.3	2130.4
42.5°	1886.1	1901.8	1959.6	2006.9	2030.5
45°	1770.5	1791.5	1849.3	1899.2	1928.1
47.5°	1654.9	1681.2	1739.0	1794.1	1815.1
50°	1539.3	1563.0	1626.0	1681.2	1707.4
52.5°	1423.7	1447.4	1513.1	1565.6	1591.9
55°	1310.8	1334.4	1402.7	1452.6	1484.2
57.5°	1195.2	1221.5	1287.1	1339.7	1363.3
60°	1084.9	1108.5	1171.6	1224.1	1255.6
62.5°	974.6	1000.8	1056.0	1111.1	1140.0
65°	869.5	893.1	945.7	995.6	1024.5
67.5°	761.8	790.7	835.3	885.2	906.3
70°	659.3	690.9	730.3	772.3	793.3
72.5°	559.5	588.4	625.2	659.3	677.7
75°	462.3	488.6	522.7	549.0	564.8
77.5°	370.4	399.3	422.9	446.6	454.4
80°	283.7	307.3	325.7	341.5	346.7
82.5°	204.9	220.7	228.5	241.7	244.3
85°	128.7	136.6	139.2	139.2	139.2
87.5°	55.2	57.8	52.5	42.0	39.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)