

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: P184186

Luminaire Tested: **24FR-80-HP-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184186
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-80-HP-UNV-L840-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8156.6 lumens
Efficiency: N/A
Efficacy: 113.8 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

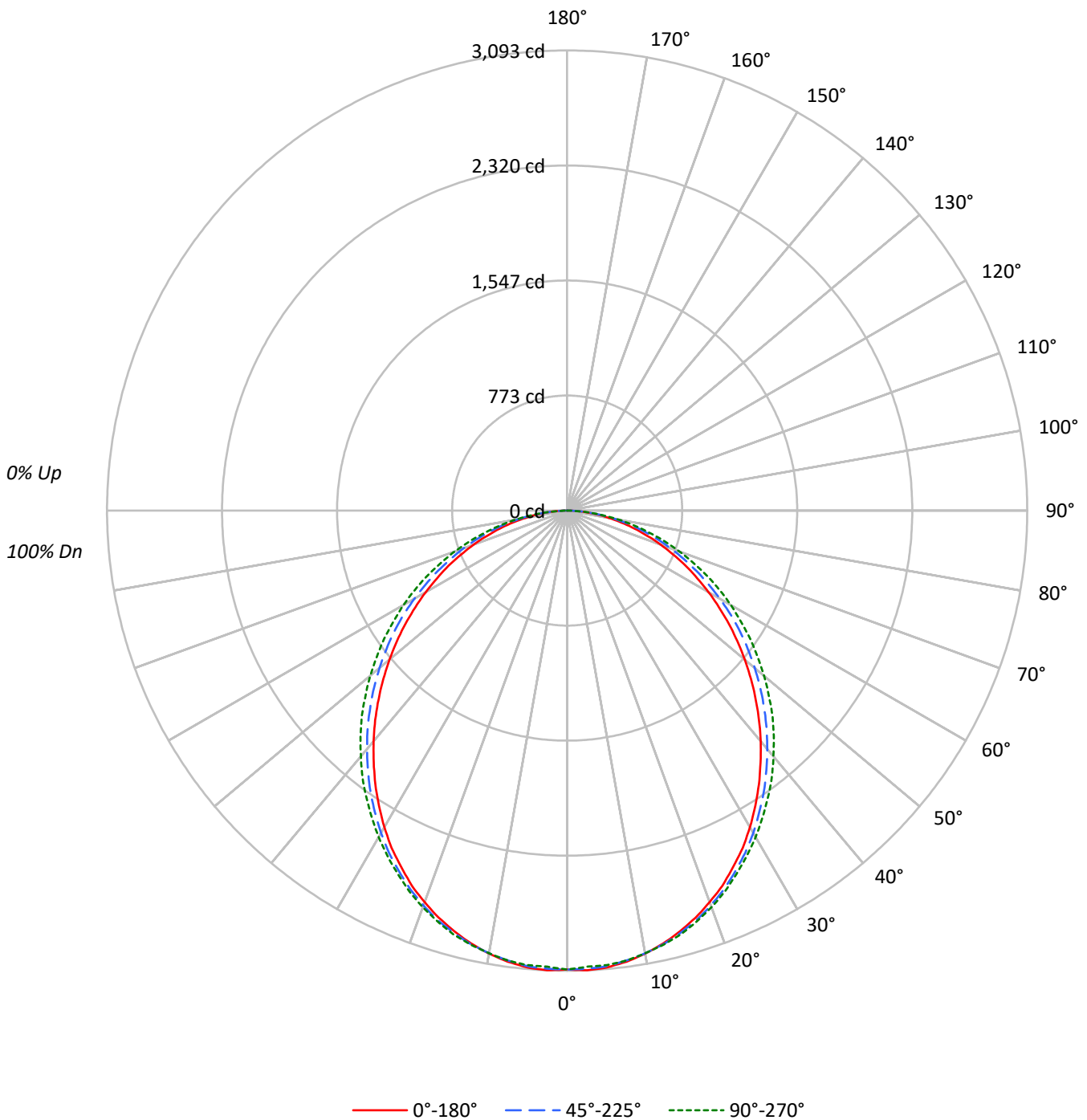
Input Watts (W): 71.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4151	4151	4151
5°	4163	4152	4141
10°	4131	4128	4128
15°	4079	4093	4108
20°	4010	4044	4063
25°	3920	3972	3999
30°	3818	3888	3938
35°	3691	3787	3866
40°	3555	3676	3788
45°	3411	3562	3714
50°	3262	3446	3618
55°	3113	3331	3525
60°	2956	3192	3421
65°	2803	3048	3302
70°	2626	2908	3159
75°	2433	2751	2973
80°	2225	2555	2720
85°	2012	2175	2175



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.3	3.6
10°-20°	827.5	10.1
20°-30°	1228.4	15.1
30°-40°	1437.6	17.6
40°-50°	1442.9	17.7
50°-60°	1263.8	15.5
60°-70°	948.7	11.6
70°-80°	557.4	6.8
80°-90°	159.0	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°	2347.3	28.8
0°-40°	3784.8	46.4
0°-60°	6491.6	79.6
0°-90°	8156.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8156.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3085	3085	3085	3085	3085	
5°	3082	3061	3074	3069	3066	292
15°	2928	2917	2939	2947	2949	825
25°	2641	2641	2675	2683	2694	1217
35°	2247	2255	2306	2335	2354	1404
45°	1792	1814	1872	1923	1952	1383
55°	1327	1351	1420	1471	1503	1186
65°	880	904	957	1008	1037	871
75°	468	495	529	556	572	498
85°	130	138	141	141	141	146
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3084.9	3084.9	3084.9	3084.9	3084.9
2.5°	3092.9	3074.3	3082.3	3079.6	3069.0
5°	3082.3	3061.0	3074.3	3069.0	3066.3
7.5°	3058.3	3037.1	3050.4	3050.4	3050.4
10°	3023.8	3007.8	3021.1	3021.1	3021.1
12.5°	2981.2	2967.9	2986.5	2989.2	2989.2
15°	2928.0	2917.4	2938.7	2946.6	2949.3
17.5°	2869.5	2861.5	2888.1	2896.1	2896.1
20°	2800.4	2795.0	2824.3	2832.3	2837.6
22.5°	2728.6	2720.6	2755.2	2760.5	2771.1
25°	2640.8	2640.8	2675.4	2683.4	2694.0
27.5°	2555.7	2553.0	2592.9	2606.2	2616.9
30°	2457.3	2457.3	2502.5	2521.1	2534.4
32.5°	2353.6	2361.6	2404.1	2428.0	2444.0
35°	2247.2	2255.2	2305.7	2335.0	2353.6
37.5°	2135.5	2148.8	2199.3	2236.6	2260.5
40°	2023.8	2042.4	2093.0	2135.5	2156.8
42.5°	1909.5	1925.4	1983.9	2031.8	2055.7
45°	1792.4	1813.7	1872.2	1922.8	1952.0
47.5°	1675.4	1702.0	1760.5	1816.4	1837.7
50°	1558.4	1582.4	1646.2	1702.0	1728.6
52.5°	1441.4	1465.3	1531.8	1585.0	1611.6
55°	1327.0	1351.0	1420.1	1470.7	1502.6
57.5°	1210.0	1236.6	1303.1	1356.3	1380.2
60°	1098.3	1122.3	1186.1	1239.3	1271.2
62.5°	986.6	1013.2	1069.1	1124.9	1154.2
65°	880.3	904.2	957.4	1007.9	1037.2
67.5°	771.2	800.5	845.7	896.2	917.5
70°	667.5	699.4	739.3	781.9	803.1
72.5°	566.5	595.7	632.9	667.5	686.1
75°	468.1	494.7	529.2	555.8	571.8
77.5°	375.0	404.2	428.2	452.1	460.1
80°	287.2	311.2	329.8	345.7	351.0
82.5°	207.4	223.4	231.4	244.7	247.3
85°	130.3	138.3	140.9	140.9	140.9
87.5°	55.8	58.5	53.2	42.6	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)