

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: P184189

Luminaire Tested: **22FR-24-HP-UNV-L830-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P184189  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27146)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22FR-24-HP-UNV-L830-CD1-U  
Description: METALUX 2X2 FR TROFFER LED HIGH EFFICIENCY FIXTURE  
  
Light Source: EATON LED 3000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

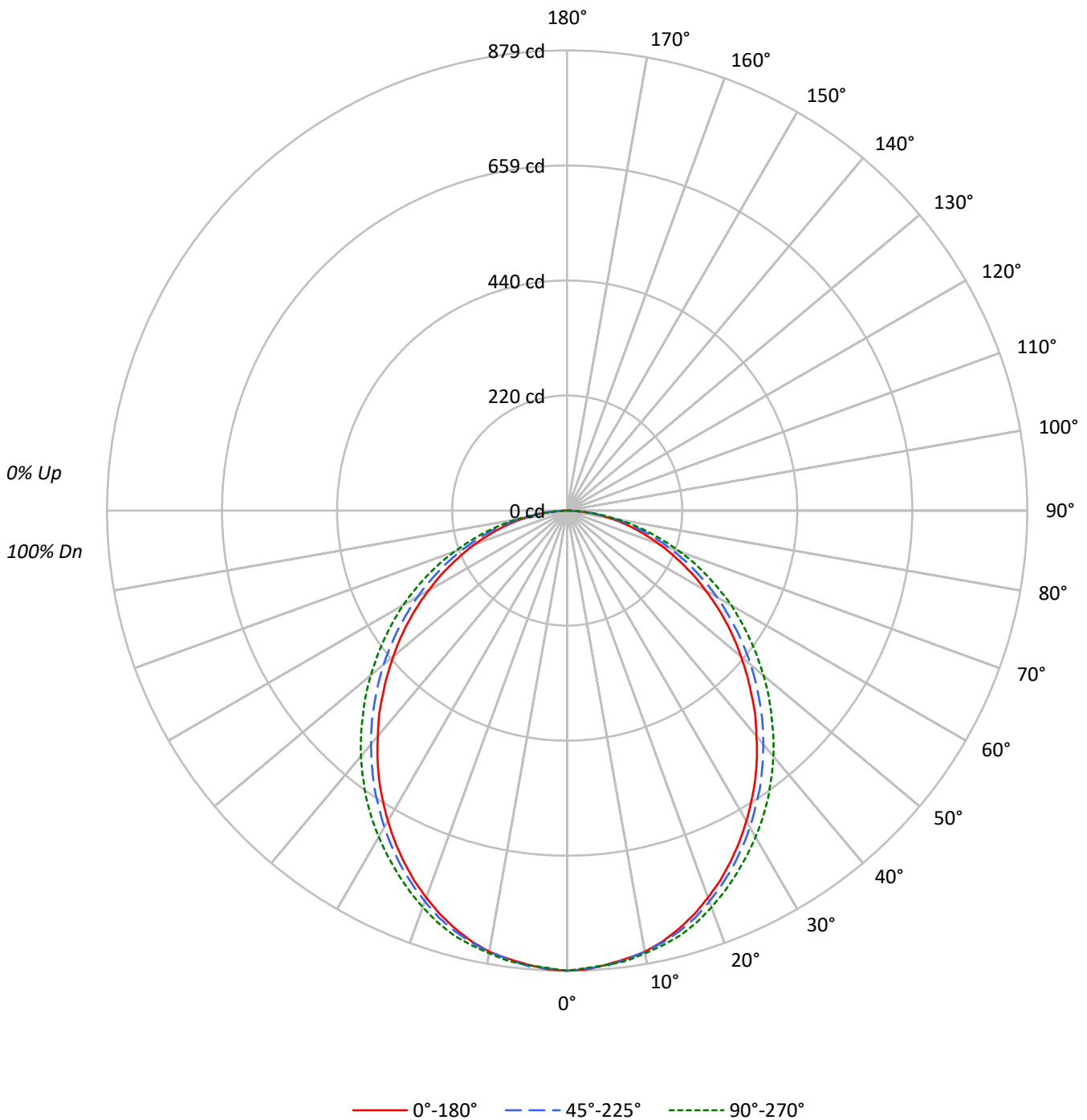
Lumens per Lamp: N/A  
Luminaire Lumens: 2288.1 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.3  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	78	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	62	59
4	83	71	62	56	81	70	62	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	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	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	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2365	2365	2365
5°	2351	2359	2353
10°	2338	2338	2346
15°	2303	2316	2338
20°	2253	2275	2309
25°	2195	2226	2273
30°	2128	2170	2236
35°	2058	2112	2198
40°	1976	2047	2153
45°	1896	1981	2100
50°	1814	1915	2049
55°	1736	1846	1996
60°	1647	1777	1950
65°	1559	1707	1880
70°	1475	1628	1796
75°	1384	1545	1697
80°	1280	1430	1536
85°	1081	1170	1170



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.7	3.6
10°-20°	234.2	10.2
20°-30°	345.6	15.1
30°-40°	402.8	17.6
40°-50°	403.2	17.6
50°-60°	353.1	15.4
60°-70°	266.1	11.6
70°-80°	156.9	6.9
80°-90°	43.4	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°	662.6	29.0
0°-40°	1065.3	46.6
0°-60°	1821.7	79.6
0°-90°	2288.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2288.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	870	871	873	869	871	83
15°	827	828	831	834	839	233
25°	739	742	750	759	765	340
35°	626	630	643	657	669	391
45°	498	505	521	539	552	385
55°	370	376	393	412	425	331
65°	245	252	268	284	295	243
75°	133	138	149	158	163	141
85°	35	37	38	38	38	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	879.0	879.0	879.0	879.0	879.0
2.5°	877.1	877.1	875.1	874.2	874.2
5°	870.3	871.2	873.2	869.3	871.2
7.5°	863.5	863.5	864.4	865.4	867.4
10°	855.7	855.7	855.7	858.6	858.6
12.5°	843.1	843.1	845.0	846.0	849.9
15°	826.6	827.5	831.4	834.3	839.2
17.5°	808.1	810.1	814.9	818.8	824.6
20°	786.7	790.6	794.5	800.3	806.2
22.5°	764.4	767.3	773.1	779.9	786.7
25°	739.1	742.1	749.8	758.6	765.4
27.5°	712.9	715.8	724.6	734.3	743.0
30°	684.8	688.6	698.4	710.0	719.7
32.5°	655.6	659.5	670.2	683.8	695.4
35°	626.5	630.4	643.0	656.6	669.2
37.5°	595.4	599.3	612.9	628.4	641.0
40°	562.4	568.2	582.8	600.3	612.9
42.5°	532.3	537.1	552.7	570.1	582.8
45°	498.3	505.1	520.6	539.1	551.7
47.5°	466.2	473.0	489.5	508.0	521.6
50°	433.2	440.0	457.5	475.9	489.5
52.5°	402.1	407.9	425.4	443.9	457.5
55°	370.1	375.9	393.4	411.8	425.4
57.5°	338.0	343.8	361.3	379.8	393.4
60°	306.0	312.8	330.2	347.7	362.3
62.5°	275.8	281.7	299.2	315.7	328.3
65°	244.8	251.6	268.1	283.6	295.3
67.5°	215.6	222.4	238.0	253.5	263.2
70°	187.5	193.3	206.9	221.5	228.3
72.5°	159.3	165.1	177.7	189.4	195.2
75°	133.1	137.9	148.6	158.3	163.2
77.5°	107.8	112.7	120.4	127.2	131.1
80°	82.6	85.5	92.3	96.2	99.1
82.5°	58.3	61.2	64.1	68.0	68.0
85°	35.0	36.9	37.9	37.9	37.9
87.5°	14.6	14.6	12.6	10.7	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)