

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: P184178

Luminaire Tested: **24FR-72-HP-UNV-L827-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184178
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-L827-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 2700K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

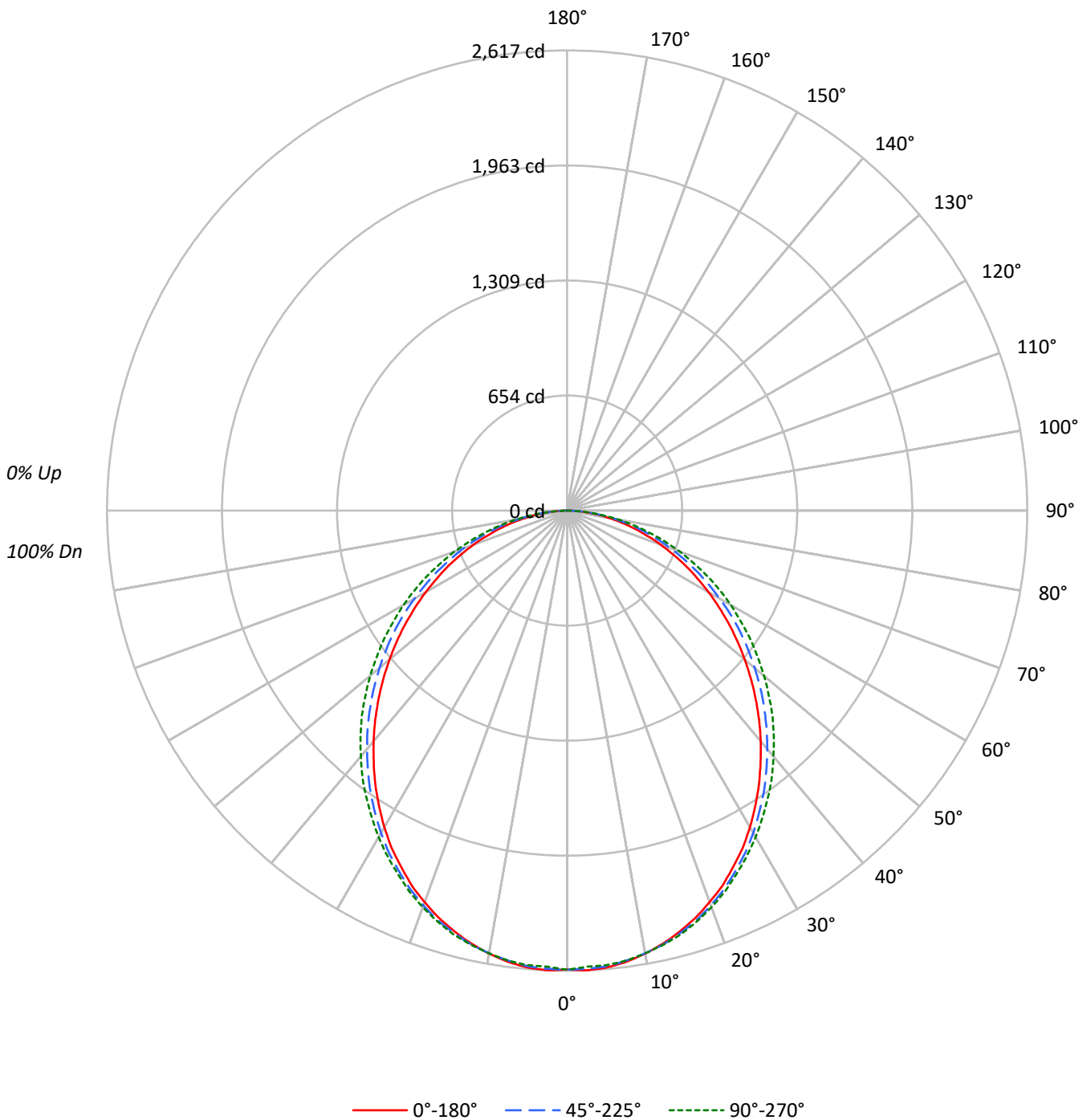
Lumens per Lamp: N/A
Luminaire Lumens: 6901.8 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3512	3512	3512
5°	3523	3513	3504
10°	3496	3493	3493
15°	3451	3464	3476
20°	3393	3422	3438
25°	3317	3361	3384
30°	3230	3290	3332
35°	3123	3205	3271
40°	3008	3111	3205
45°	2886	3014	3143
50°	2760	2916	3062
55°	2634	2819	2982
60°	2501	2701	2894
65°	2371	2579	2794
70°	2222	2461	2674
75°	2059	2328	2515
80°	1883	2162	2301
85°	1703	1842	1842



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.5	3.6
10°-20°	700.2	10.1
20°-30°	1039.4	15.1
30°-40°	1216.4	17.6
40°-50°	1220.9	17.7
50°-60°	1069.4	15.5
60°-70°	802.7	11.6
70°-80°	471.7	6.8
80°-90°	134.5	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°	1986.1	28.8
0°-40°	3202.5	46.4
0°-60°	5492.9	79.6
0°-90°	6901.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6901.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2610	2610	2610	2610	2610	
5°	2608	2590	2601	2597	2595	247
15°	2478	2468	2486	2493	2496	698
25°	2234	2234	2264	2270	2280	1029
35°	1902	1908	1951	1976	1992	1188
45°	1517	1535	1584	1627	1652	1170
55°	1123	1143	1202	1244	1271	1004
65°	745	765	810	853	878	737
75°	396	418	448	470	484	421
85°	110	117	119	119	119	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2610.3	2610.3	2610.3	2610.3	2610.3
2.5°	2617.1	2601.3	2608.1	2605.8	2596.8
5°	2608.1	2590.1	2601.3	2596.8	2594.6
7.5°	2587.8	2569.8	2581.1	2581.1	2581.1
10°	2558.6	2545.0	2556.3	2556.3	2556.3
12.5°	2522.5	2511.3	2527.0	2529.3	2529.3
15°	2477.5	2468.5	2486.5	2493.3	2495.5
17.5°	2428.0	2421.3	2443.8	2450.5	2450.5
20°	2369.5	2365.0	2389.8	2396.5	2401.0
22.5°	2308.8	2302.0	2331.3	2335.8	2344.8
25°	2234.5	2234.5	2263.8	2270.5	2279.5
27.5°	2162.5	2160.3	2194.0	2205.3	2214.3
30°	2079.2	2079.2	2117.5	2133.3	2144.5
32.5°	1991.5	1998.2	2034.2	2054.5	2068.0
35°	1901.5	1908.2	1951.0	1975.7	1991.5
37.5°	1807.0	1818.2	1861.0	1892.5	1912.7
40°	1712.5	1728.2	1771.0	1807.0	1825.0
42.5°	1615.7	1629.2	1678.7	1719.2	1739.5
45°	1516.7	1534.7	1584.2	1626.9	1651.7
47.5°	1417.7	1440.2	1489.7	1536.9	1554.9
50°	1318.7	1338.9	1392.9	1440.2	1462.7
52.5°	1219.6	1239.9	1296.2	1341.2	1363.7
55°	1122.9	1143.1	1201.6	1244.4	1271.4
57.5°	1023.9	1046.4	1102.6	1147.6	1167.9
60°	929.4	949.6	1003.6	1048.6	1075.6
62.5°	834.8	857.4	904.6	951.9	976.6
65°	744.8	765.1	810.1	852.9	877.6
67.5°	652.6	677.3	715.6	758.3	776.3
70°	564.8	591.8	625.6	661.6	679.6
72.5°	479.3	504.1	535.6	564.8	580.6
75°	396.0	418.5	447.8	470.3	483.8
77.5°	317.3	342.0	362.3	382.5	389.3
80°	243.0	263.3	279.0	292.5	297.0
82.5°	175.5	189.0	195.8	207.0	209.3
85°	110.3	117.0	119.3	119.3	119.3
87.5°	47.3	49.5	45.0	36.0	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)