

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: P184183

Luminaire Tested: **24FR-80-HP-UNV-L827-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184183
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-L827-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

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

Summary

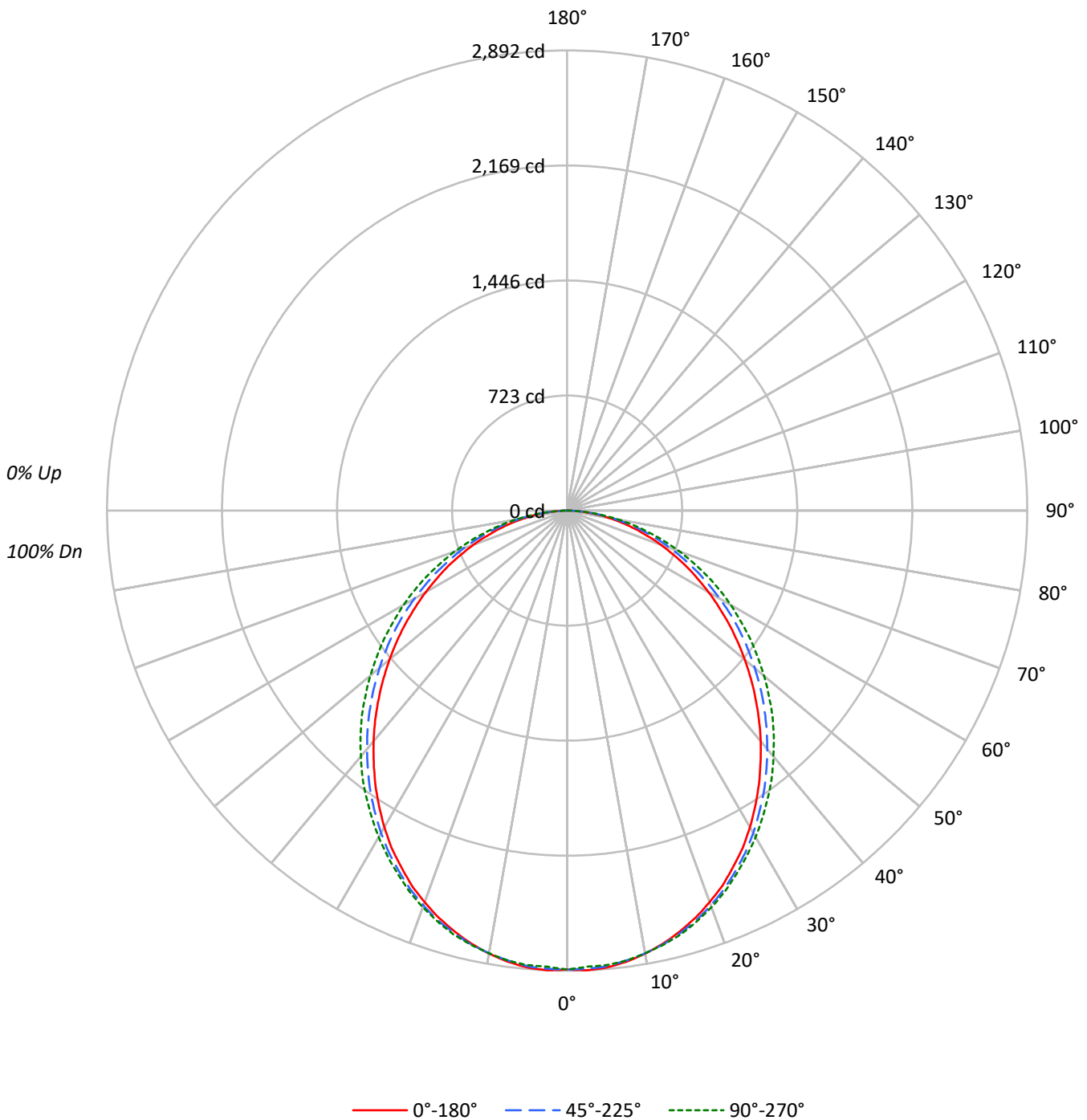
Lumens per Lamp: N/A
Luminaire Lumens: 7626.6 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 71.7
Input Voltage (V): NR
Input Current (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: 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°	3881	3881	3881
5°	3893	3882	3872
10°	3863	3859	3859
15°	3813	3827	3841
20°	3749	3781	3799
25°	3666	3714	3740
30°	3570	3635	3682
35°	3451	3541	3615
40°	3324	3437	3542
45°	3189	3331	3473
50°	3050	3222	3383
55°	2911	3115	3296
60°	2764	2984	3198
65°	2621	2850	3088
70°	2455	2720	2954
75°	2275	2572	2779
80°	2081	2389	2543
85°	1880	2035	2035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.4	3.6
10°-20°	773.7	10.1
20°-30°	1148.6	15.1
30°-40°	1344.2	17.6
40°-50°	1349.1	17.7
50°-60°	1181.7	15.5
60°-70°	887.0	11.6
70°-80°	521.2	6.8
80°-90°	148.6	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°	2194.7	28.8
0°-40°	3538.9	46.4
0°-60°	6069.7	79.6
0°-90°	7626.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7626.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2884	2884	2884	2884	2884	
5°	2882	2862	2874	2870	2867	273
15°	2738	2728	2748	2755	2758	772
25°	2469	2469	2502	2509	2519	1138
35°	2101	2109	2156	2183	2201	1313
45°	1676	1696	1751	1798	1825	1293
55°	1241	1263	1328	1375	1405	1109
65°	823	845	895	942	970	814
75°	438	462	495	520	535	465
85°	122	129	132	132	132	137
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2884.5	2884.5	2884.5	2884.5	2884.5
2.5°	2891.9	2874.5	2882.0	2879.5	2869.5
5°	2882.0	2862.1	2874.5	2869.5	2867.0
7.5°	2859.6	2839.7	2852.1	2852.1	2852.1
10°	2827.3	2812.3	2824.8	2824.8	2824.8
12.5°	2787.5	2775.0	2792.4	2794.9	2794.9
15°	2737.7	2727.8	2747.7	2755.1	2757.6
17.5°	2683.0	2675.6	2700.4	2707.9	2707.9
20°	2618.4	2613.4	2640.8	2648.2	2653.2
22.5°	2551.2	2543.8	2576.1	2581.1	2591.0
25°	2469.2	2469.2	2501.5	2509.0	2518.9
27.5°	2389.6	2387.1	2424.4	2436.9	2446.8
30°	2297.6	2297.6	2339.9	2357.3	2369.7
32.5°	2200.6	2208.1	2247.9	2270.3	2285.2
35°	2101.2	2108.6	2155.9	2183.2	2200.6
37.5°	1996.7	2009.2	2056.4	2091.2	2113.6
40°	1892.3	1909.7	1957.0	1996.7	2016.6
42.5°	1785.4	1800.3	1855.0	1899.8	1922.1
45°	1676.0	1695.9	1750.6	1797.8	1825.2
47.5°	1566.6	1591.4	1646.1	1698.3	1718.2
50°	1457.1	1479.5	1539.2	1591.4	1616.3
52.5°	1347.7	1370.1	1432.3	1482.0	1506.9
55°	1240.8	1263.2	1327.8	1375.1	1404.9
57.5°	1131.4	1156.3	1218.4	1268.2	1290.5
60°	1027.0	1049.3	1109.0	1158.8	1188.6
62.5°	922.5	947.4	999.6	1051.8	1079.2
65°	823.1	845.4	895.2	942.4	969.8
67.5°	721.1	748.5	790.7	838.0	857.9
70°	624.1	654.0	691.3	731.1	751.0
72.5°	529.6	557.0	591.8	624.1	641.5
75°	437.6	462.5	494.8	519.7	534.6
77.5°	350.6	378.0	400.3	422.7	430.2
80°	268.6	290.9	308.3	323.3	328.2
82.5°	194.0	208.9	216.3	228.8	231.3
85°	121.8	129.3	131.8	131.8	131.8
87.5°	52.2	54.7	49.7	39.8	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)