

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: P184188

Luminaire Tested: **22FR-24-HP-UNV-L827-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184188
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-L827-CD1-U
Description: METALUX 2X2 FR TROFFER LED HIGH EFFICIENCY FIXTURE

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

Summary

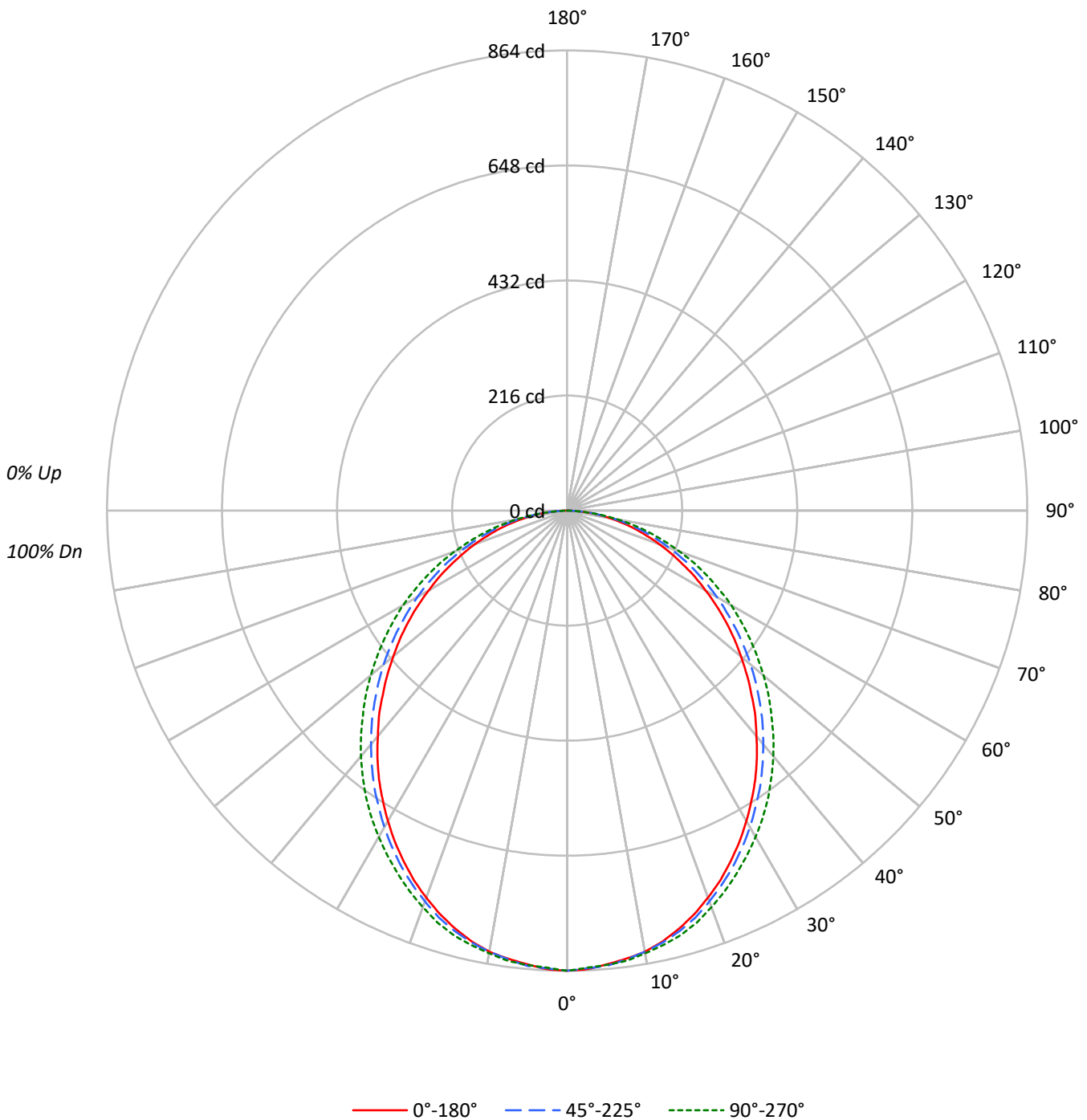
Lumens per Lamp: N/A
Luminaire Lumens: 2249.0 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.3
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 19.9
Input Voltage (V): NR
Input Current (A_{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	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°	2325	2325	2325
5°	2311	2318	2313
10°	2298	2298	2306
15°	2264	2277	2298
20°	2214	2237	2269
25°	2157	2188	2234
30°	2092	2133	2198
35°	2023	2076	2161
40°	1942	2012	2116
45°	1864	1947	2064
50°	1783	1883	2015
55°	1706	1814	1962
60°	1618	1747	1917
65°	1532	1678	1848
70°	1450	1600	1766
75°	1360	1519	1668
80°	1258	1406	1509
85°	1062	1149	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	3.6
10°-20°	230.3	10.2
20°-30°	339.7	15.1
30°-40°	395.9	17.6
40°-50°	396.4	17.6
50°-60°	347.1	15.4
60°-70°	261.6	11.6
70°-80°	154.2	6.9
80°-90°	42.6	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°	651.3	29.0
0°-40°	1047.2	46.6
0°-60°	1790.6	79.6
0°-90°	2249.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2249.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	855	856	858	854	856	81
15°	812	813	817	820	825	229
25°	726	729	737	746	752	334
35°	616	620	632	645	658	385
45°	490	496	512	530	542	378
55°	364	370	387	405	418	325
65°	241	247	264	279	290	239
75°	131	136	146	156	160	139
85°	34	36	37	37	37	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	864.0	864.0	864.0	864.0	864.0
2.5°	862.1	862.1	860.2	859.2	859.2
5°	855.4	856.4	858.3	854.5	856.4
7.5°	848.7	848.7	849.7	850.6	852.6
10°	841.1	841.1	841.1	844.0	844.0
12.5°	828.7	828.7	830.6	831.6	835.4
15°	812.5	813.4	817.2	820.1	824.9
17.5°	794.3	796.2	801.0	804.8	810.6
20°	773.3	777.1	781.0	786.7	792.4
22.5°	751.4	754.2	760.0	766.6	773.3
25°	726.5	729.4	737.0	745.6	752.3
27.5°	700.8	703.6	712.2	721.8	730.4
30°	673.1	676.9	686.4	697.9	707.4
32.5°	644.4	648.3	658.8	672.1	683.6
35°	615.8	619.6	632.0	645.4	657.8
37.5°	585.2	589.1	602.4	617.7	630.1
40°	552.8	558.5	572.8	590.0	602.4
42.5°	523.2	528.0	543.2	560.4	572.8
45°	489.8	496.5	511.7	529.9	542.3
47.5°	458.3	464.9	481.2	499.3	512.7
50°	425.8	432.5	449.7	467.8	481.2
52.5°	395.3	401.0	418.2	436.3	449.7
55°	363.7	369.5	386.7	404.8	418.2
57.5°	332.2	338.0	355.2	373.3	386.7
60°	300.7	307.4	324.6	341.8	356.1
62.5°	271.1	276.9	294.1	310.3	322.7
65°	240.6	247.3	263.5	278.8	290.2
67.5°	211.9	218.6	233.9	249.2	258.7
70°	184.3	190.0	203.4	217.7	224.4
72.5°	156.6	162.3	174.7	186.2	191.9
75°	130.8	135.6	146.1	155.6	160.4
77.5°	106.0	110.7	118.4	125.1	128.9
80°	81.2	84.0	90.7	94.5	97.4
82.5°	57.3	60.1	63.0	66.8	66.8
85°	34.4	36.3	37.2	37.2	37.2
87.5°	14.3	14.3	12.4	10.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)