

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: P184162

Luminaire Tested: **24FR-30-HP-UNV-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184162
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-30-HP-UNV-L850-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3401.2 lumens
Efficiency: N/A
Efficacy: 149.2 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

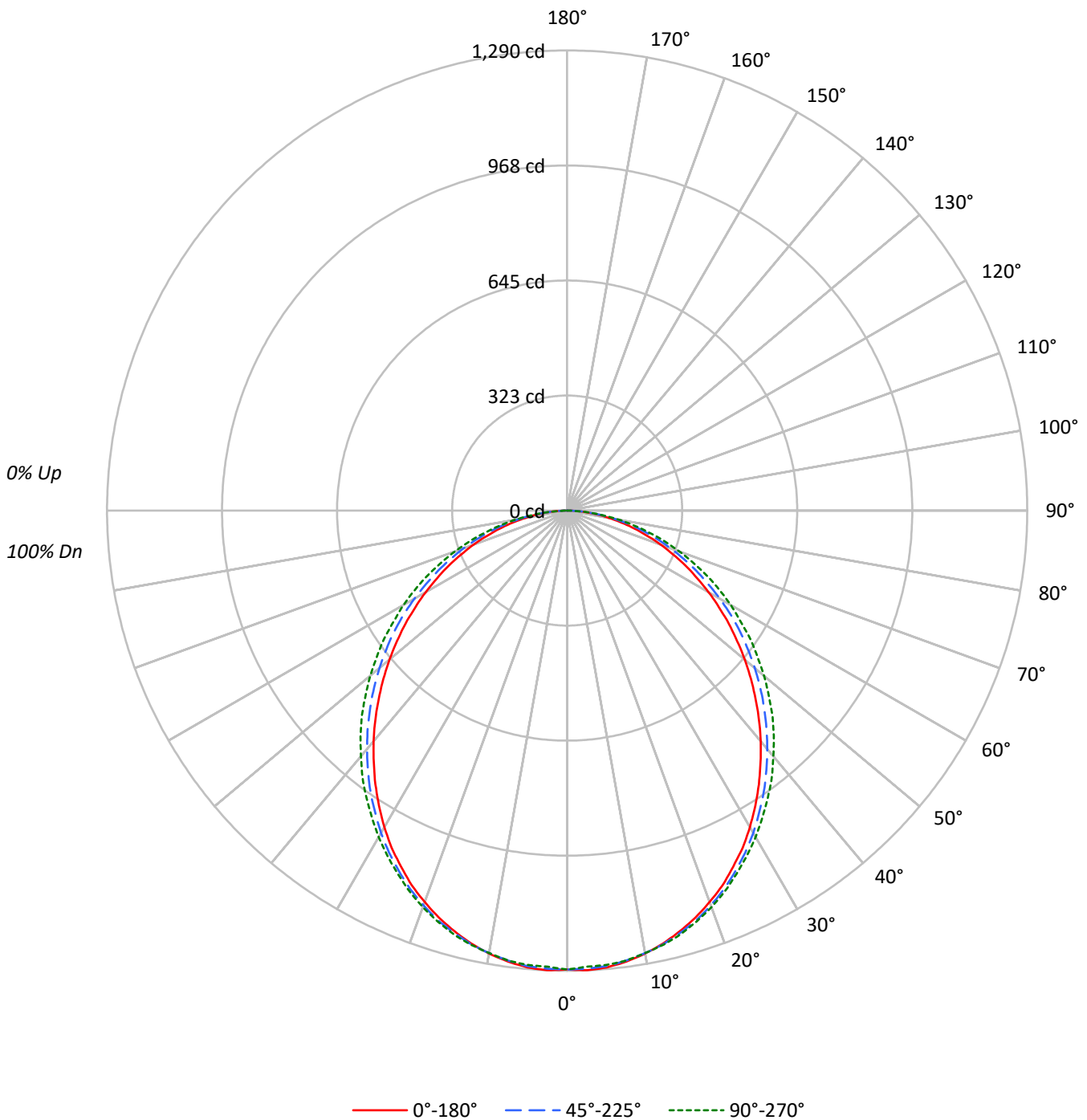
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84					84			
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70					70			
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59					59			
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51					51			
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1731	1731	1731
5°	1736	1731	1727
10°	1723	1721	1721
15°	1701	1707	1713
20°	1672	1686	1694
25°	1635	1656	1668
30°	1592	1621	1642
35°	1539	1579	1612
40°	1482	1533	1580
45°	1422	1486	1549
50°	1360	1437	1509
55°	1298	1389	1470
60°	1232	1331	1426
65°	1169	1271	1377
70°	1095	1213	1317
75°	1015	1147	1239
80°	928	1065	1134
85°	838	908	908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	3.6
10°-20°	345.1	10.1
20°-30°	512.2	15.1
30°-40°	599.5	17.6
40°-50°	601.7	17.7
50°-60°	527.0	15.5
60°-70°	395.6	11.6
70°-80°	232.4	6.8
80°-90°	66.3	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°	978.8	28.8
0°-40°	1578.2	46.4
0°-60°	2706.9	79.6
0°-90°	3401.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3401.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1286	1286	1286	1286	1286	
5°	1285	1276	1282	1280	1279	122
15°	1221	1216	1225	1229	1230	344
25°	1101	1101	1116	1119	1123	507
35°	937	940	962	974	981	586
45°	747	756	781	802	814	577
55°	553	563	592	613	627	495
65°	367	377	399	420	432	363
75°	195	206	221	232	238	207
85°	54	58	59	59	59	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1286.4	1286.4	1286.4	1286.4	1286.4
2.5°	1289.7	1281.9	1285.3	1284.2	1279.7
5°	1285.3	1276.4	1281.9	1279.7	1278.6
7.5°	1275.3	1266.4	1272.0	1272.0	1272.0
10°	1260.9	1254.2	1259.8	1259.8	1259.8
12.5°	1243.1	1237.6	1245.3	1246.5	1246.5
15°	1220.9	1216.5	1225.4	1228.7	1229.8
17.5°	1196.6	1193.2	1204.3	1207.6	1207.6
20°	1167.7	1165.5	1177.7	1181.0	1183.2
22.5°	1137.8	1134.4	1148.9	1151.1	1155.5
25°	1101.2	1101.2	1115.6	1118.9	1123.4
27.5°	1065.7	1064.6	1081.2	1086.8	1091.2
30°	1024.7	1024.7	1043.5	1051.3	1056.8
32.5°	981.4	984.7	1002.5	1012.5	1019.1
35°	937.1	940.4	961.5	973.7	981.4
37.5°	890.5	896.0	917.1	932.6	942.6
40°	843.9	851.7	872.7	890.5	899.4
42.5°	796.2	802.9	827.3	847.2	857.2
45°	747.4	756.3	780.7	801.8	814.0
47.5°	698.6	709.7	734.1	757.4	766.3
50°	649.8	659.8	686.4	709.7	720.8
52.5°	601.0	611.0	638.8	660.9	672.0
55°	553.4	563.3	592.2	613.2	626.6
57.5°	504.6	515.7	543.4	565.6	575.5
60°	458.0	468.0	494.6	516.8	530.1
62.5°	411.4	422.5	445.8	469.1	481.3
65°	367.1	377.0	399.2	420.3	432.5
67.5°	321.6	333.8	352.6	373.7	382.6
70°	278.3	291.7	308.3	326.0	334.9
72.5°	236.2	248.4	263.9	278.3	286.1
75°	195.2	206.3	220.7	231.8	238.4
77.5°	156.4	168.6	178.5	188.5	191.8
80°	119.8	129.7	137.5	144.2	146.4
82.5°	86.5	93.2	96.5	102.0	103.1
85°	54.3	57.7	58.8	58.8	58.8
87.5°	23.3	24.4	22.2	17.7	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)