

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: P238889

Luminaire Tested: **24EN-LD2-45-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P238889
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-234-34)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24EN-LD2-45-UNV-L830-CD1-U
Description: METALUX ENCOUNTER 2X4 LED TROFFER
STANDARD OPTION
Light Source: (224)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4515.5 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

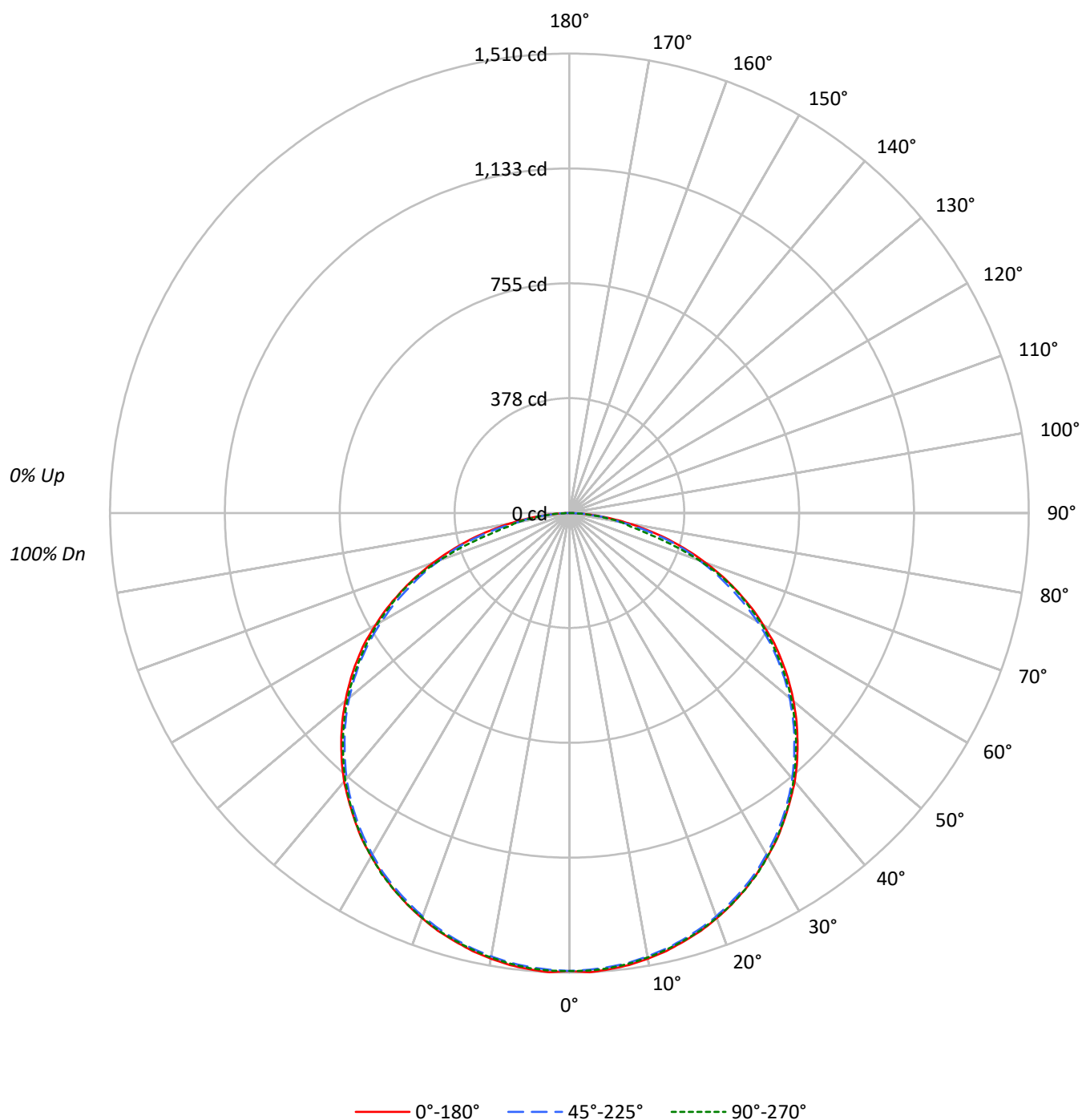
Input Watts (W): 38
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	90	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		26
10	52	39	31	26	51	38	31	25	37	30	25		36	30	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2305	2305	2305
5°	2314	2302	2308
10°	2313	2301	2307
15°	2310	2299	2305
20°	2310	2299	2307
25°	2307	2296	2307
30°	2304	2291	2304
35°	2302	2286	2299
40°	2303	2279	2292
45°	2297	2264	2281
50°	2291	2250	2271
55°	2283	2227	2250
60°	2254	2185	2231
65°	2209	2116	2195
70°	2129	2041	2037
75°	2004	1915	1619
80°	1764	1498	1539
85°	1394	1309	1211



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.5	3.2
10°-20°	409.9	9.1
20°-30°	627.3	13.9
30°-40°	766.7	17.0
40°-50°	810.2	17.9
50°-60°	750.7	16.6
60°-70°	588.1	13.0
70°-80°	332.5	7.4
80°-90°	87.5	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°	1179.7	26.1
0°-40°	1946.5	43.1
0°-60°	3507.3	77.7
0°-90°	4515.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4515.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1505	1505	1505	1505	1505	
5°	1505	1500	1497	1496	1501	143
15°	1457	1451	1450	1449	1454	412
25°	1365	1360	1359	1359	1365	629
35°	1231	1226	1223	1223	1229	771
45°	1060	1053	1045	1045	1053	818
55°	855	845	834	836	842	763
65°	610	598	584	592	606	603
75°	339	329	324	289	274	356
85°	79	74	74	71	69	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1504.8	1504.8	1504.8	1504.8	1504.8
2.5°	1510.5	1503.9	1502.0	1500.1	1504.8
5°	1504.8	1500.1	1497.3	1496.3	1501.1
7.5°	1498.2	1492.6	1490.7	1488.8	1493.5
10°	1486.9	1481.3	1479.4	1478.4	1483.1
12.5°	1473.7	1467.1	1466.2	1465.2	1469.9
15°	1456.7	1451.1	1450.1	1449.2	1453.9
17.5°	1438.8	1433.1	1431.2	1430.3	1436.9
20°	1417.1	1411.4	1410.5	1409.5	1415.2
22.5°	1392.6	1386.9	1385.0	1386.0	1391.6
25°	1365.2	1359.5	1358.6	1358.6	1365.2
27.5°	1335.0	1329.4	1329.4	1329.4	1336.9
30°	1302.9	1298.2	1295.4	1296.3	1302.9
32.5°	1269.9	1262.4	1260.5	1261.4	1268.0
35°	1231.2	1225.6	1222.7	1222.7	1229.3
37.5°	1191.6	1185.9	1182.2	1182.2	1188.8
40°	1152.0	1143.5	1139.7	1137.8	1146.3
42.5°	1107.6	1101.0	1092.5	1092.5	1100.1
45°	1060.5	1052.9	1045.4	1045.4	1052.9
47.5°	1012.3	1004.8	996.3	996.3	1003.9
50°	961.4	953.8	944.4	944.4	952.9
52.5°	909.5	901.0	890.6	889.7	898.2
55°	854.8	845.4	834.0	835.9	842.5
57.5°	799.1	786.9	775.5	775.5	785.9
60°	735.9	725.5	713.3	715.2	728.4
62.5°	675.5	662.3	650.1	654.8	666.1
65°	609.5	598.2	584.0	591.6	605.7
67.5°	544.4	532.1	520.8	530.2	536.8
70°	475.5	464.2	455.7	455.7	454.8
72.5°	406.6	396.3	394.4	376.4	365.1
75°	338.7	329.3	323.6	288.7	273.6
77.5°	267.9	265.1	247.2	210.4	205.7
80°	200.0	201.9	169.8	170.8	174.5
82.5°	137.7	134.9	127.4	121.7	119.8
85°	79.3	74.5	74.5	70.8	68.9
87.5°	26.4	29.2	29.2	29.2	30.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)