

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: P238971

Luminaire Tested: **24EN-LD2-45-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P238971
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-L940-CD1-U
Description: METALUX ENCOUNTER 2X4 LED TROFFER
STANDARD OPTION
Light Source: (224)4000K CCT, 90 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4192.8 lumens
Efficiency: N/A
Efficacy: 110.3 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

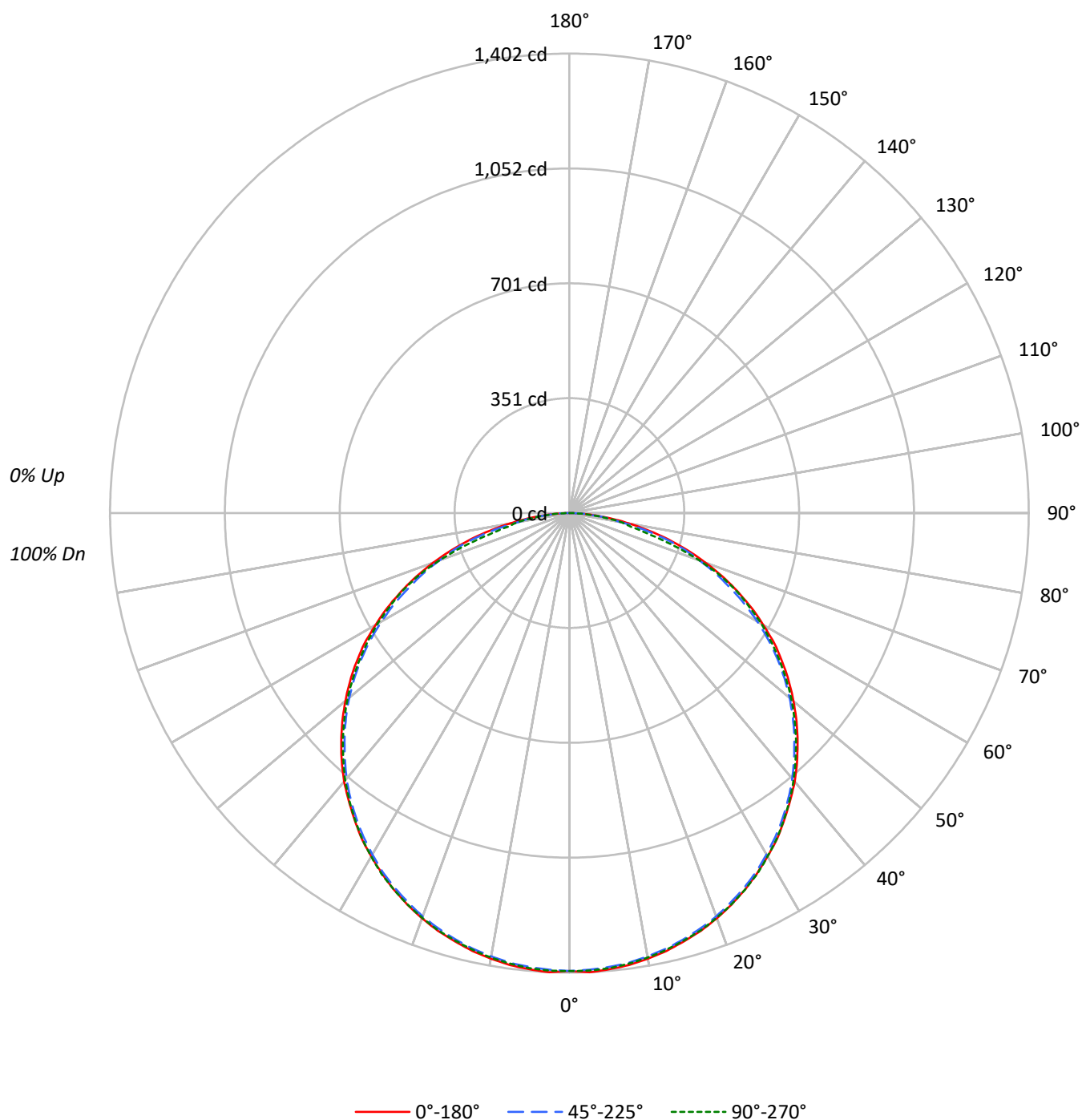
Input Watts (W): 38
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P238971

CATALOG NUMBER: 24EN-LD2-45-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P238971

CATALOG NUMBER: 24EN-LD2-45-UNV-L940-CD1-U

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°	2140	2140	2140
5°	2148	2138	2143
10°	2147	2136	2142
15°	2145	2135	2141
20°	2145	2135	2142
25°	2142	2132	2142
30°	2140	2127	2140
35°	2138	2123	2134
40°	2139	2116	2128
45°	2133	2102	2118
50°	2127	2089	2108
55°	2119	2068	2089
60°	2093	2029	2072
65°	2051	1965	2038
70°	1977	1895	1891
75°	1861	1778	1503
80°	1638	1391	1430
85°	1293	1216	1125



TEST NUMBER: P238971

CATALOG NUMBER: 24EN-LD2-45-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.3	3.2
10°-20°	380.6	9.1
20°-30°	582.4	13.9
30°-40°	711.9	17.0
40°-50°	752.3	17.9
50°-60°	697.0	16.6
60°-70°	546.1	13.0
70°-80°	308.7	7.4
80°-90°	81.3	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°	1095.4	26.1
0°-40°	1807.3	43.1
0°-60°	3256.6	77.7
0°-90°	4192.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4192.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1397	1397	1397	1397	1397	
5°	1397	1393	1390	1389	1394	133
15°	1353	1347	1346	1346	1350	382
25°	1268	1262	1262	1262	1268	584
35°	1143	1138	1135	1135	1142	716
45°	985	978	971	971	978	760
55°	794	785	774	776	782	709
65°	566	555	542	549	562	560
75°	314	306	300	268	254	331
85°	74	69	69	66	64	87
90°	0	0	0	0	0	



TEST NUMBER: P238971

CATALOG NUMBER: 24EN-LD2-45-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1397.3	1397.3	1397.3	1397.3	1397.3
2.5°	1402.5	1396.4	1394.6	1392.9	1397.3
5°	1397.3	1392.9	1390.3	1389.4	1393.8
7.5°	1391.1	1385.9	1384.1	1382.4	1386.8
10°	1380.6	1375.4	1373.6	1372.7	1377.1
12.5°	1368.4	1362.2	1361.4	1360.5	1364.9
15°	1352.6	1347.3	1346.5	1345.6	1350.0
17.5°	1335.9	1330.7	1328.9	1328.1	1334.2
20°	1315.8	1310.5	1309.7	1308.8	1314.0
22.5°	1293.0	1287.8	1286.0	1286.9	1292.1
25°	1267.6	1262.4	1261.5	1261.5	1267.6
27.5°	1239.6	1234.3	1234.3	1234.3	1241.3
30°	1209.8	1205.4	1202.8	1203.7	1209.8
32.5°	1179.1	1172.1	1170.4	1171.3	1177.4
35°	1143.2	1138.0	1135.3	1135.3	1141.5
37.5°	1106.4	1101.2	1097.7	1097.7	1103.8
40°	1069.6	1061.8	1058.2	1056.5	1064.4
42.5°	1028.5	1022.3	1014.4	1014.4	1021.5
45°	984.7	977.7	970.6	970.6	977.7
47.5°	940.0	933.0	925.1	925.1	932.1
50°	892.7	885.7	876.9	876.9	884.8
52.5°	844.5	836.6	827.0	826.1	834.0
55°	793.7	784.9	774.4	776.2	782.3
57.5°	742.0	730.6	720.1	720.1	729.7
60°	683.3	673.7	662.3	664.0	676.3
62.5°	627.2	615.0	603.6	608.0	618.5
65°	565.9	555.4	542.3	549.3	562.4
67.5°	505.5	494.1	483.6	492.3	498.5
70°	441.5	431.0	423.1	423.1	422.2
72.5°	377.6	367.9	366.2	349.5	339.0
75°	314.5	305.7	300.5	268.1	254.0
77.5°	248.8	246.2	229.5	195.4	191.0
80°	185.7	187.5	157.7	158.6	162.1
82.5°	127.9	125.3	118.3	113.0	111.3
85°	73.6	69.2	69.2	65.7	64.0
87.5°	24.5	27.2	27.2	27.2	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)