

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: P229869

Luminaire Tested: **24RLN-LD5-45-UNV-L930-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229869  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36062)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-45-UNV-L930-CD1-SVPD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH SENSOR  
Light Source: (252)3000K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3728.0 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

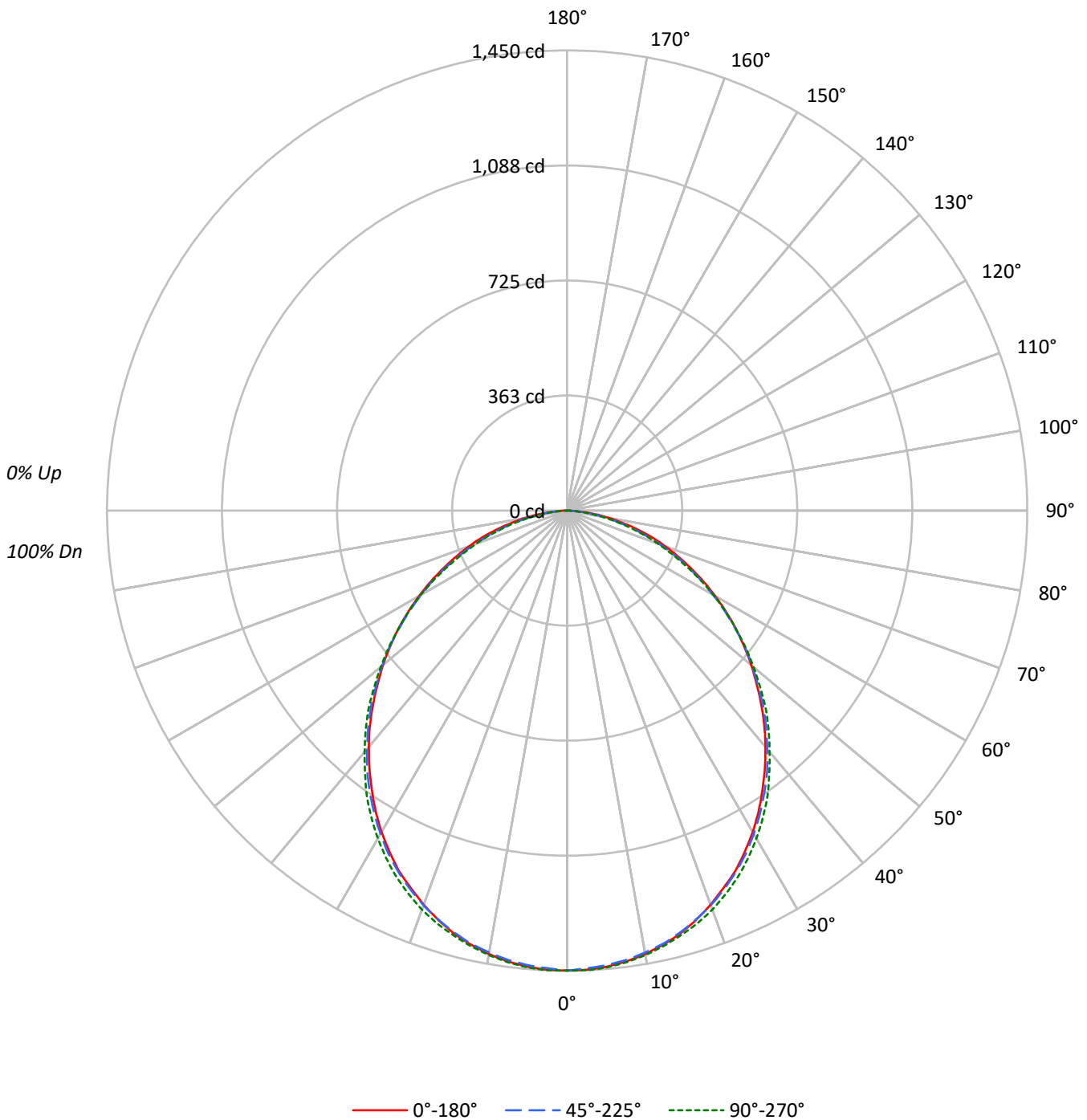
Input Watts (W): 34  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				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	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	31	42	35	30	41	35	30	28
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2220	2220	2220
5°	2218	2210	2221
10°	2206	2199	2212
15°	2187	2182	2197
20°	2154	2158	2181
25°	2119	2125	2153
30°	2068	2081	2110
35°	2007	2027	2058
40°	1944	1961	1984
45°	1875	1893	1918
50°	1805	1813	1827
55°	1734	1725	1731
60°	1651	1626	1633
65°	1558	1523	1497
70°	1472	1393	1361
75°	1356	1236	1194
80°	1193	1047	984
85°	938	731	543



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.8	3.7
10°-20°	389.0	10.4
20°-30°	579.8	15.6
30°-40°	677.8	18.2
40°-50°	673.1	18.1
50°-60°	578.0	15.5
60°-70°	416.4	11.2
70°-80°	224.2	6.0
80°-90°	52.9	1.4
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°	1105.6	29.7
0°-40°	1783.4	47.8
0°-60°	3034.6	81.4
0°-90°	3728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3728.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1450	1450	1450	1450	1450	
5°	1442	1441	1438	1442	1445	137
15°	1380	1376	1376	1384	1385	389
25°	1254	1249	1257	1270	1274	576
35°	1073	1072	1084	1096	1100	671
45°	865	863	874	881	886	668
55°	649	643	646	649	648	580
65°	430	423	420	417	413	427
75°	229	215	209	203	202	243
85°	53	49	42	33	31	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1449.5	1449.5	1449.5	1449.5	1449.5
2.5°	1448.3	1447.1	1443.6	1448.3	1449.5
5°	1442.4	1441.2	1437.6	1442.4	1444.8
7.5°	1432.9	1430.5	1428.1	1432.9	1435.3
10°	1418.7	1416.3	1413.9	1419.8	1422.2
12.5°	1400.8	1398.5	1398.5	1403.2	1405.6
15°	1379.5	1375.9	1375.9	1384.2	1385.4
17.5°	1352.2	1349.8	1351.0	1360.5	1364.0
20°	1321.3	1320.1	1323.7	1334.4	1337.9
22.5°	1286.9	1285.7	1291.6	1304.7	1307.1
25°	1253.6	1248.9	1257.2	1270.3	1273.8
27.5°	1212.1	1208.5	1219.2	1231.1	1234.6
30°	1169.3	1165.8	1176.5	1189.5	1193.1
32.5°	1123.1	1120.7	1131.4	1144.4	1148.0
35°	1073.2	1072.0	1083.9	1095.7	1100.5
37.5°	1023.3	1022.1	1035.2	1044.7	1045.9
40°	972.3	969.9	980.6	991.3	992.5
42.5°	920.0	916.5	928.4	936.7	940.2
45°	865.4	863.1	873.7	880.9	885.6
47.5°	809.6	809.6	815.6	823.9	825.1
50°	757.4	753.8	761.0	765.7	766.9
52.5°	702.8	699.2	705.2	706.4	708.7
55°	649.4	643.4	645.8	649.4	648.2
57.5°	593.6	584.1	588.8	588.8	591.2
60°	539.0	530.7	530.7	530.7	533.0
62.5°	484.4	476.0	476.0	474.9	473.7
65°	429.8	422.6	420.3	416.7	413.1
67.5°	377.5	369.2	364.5	359.7	356.1
70°	328.8	314.6	311.0	303.9	303.9
72.5°	280.2	265.9	258.8	254.1	252.9
75°	229.1	214.9	208.9	203.0	201.8
77.5°	179.3	169.8	160.3	155.5	153.1
80°	135.3	127.0	118.7	110.4	111.6
82.5°	92.6	84.3	78.4	71.2	68.9
85°	53.4	48.7	41.6	33.2	30.9
87.5°	22.6	16.6	11.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)