

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: P219236

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L940-CD1-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219236  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-38-A19/156-UNV-L940-CD1-U  
Description: METALUX GR 2X4 LED TROFFER WITH A19/156 LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3302.7 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

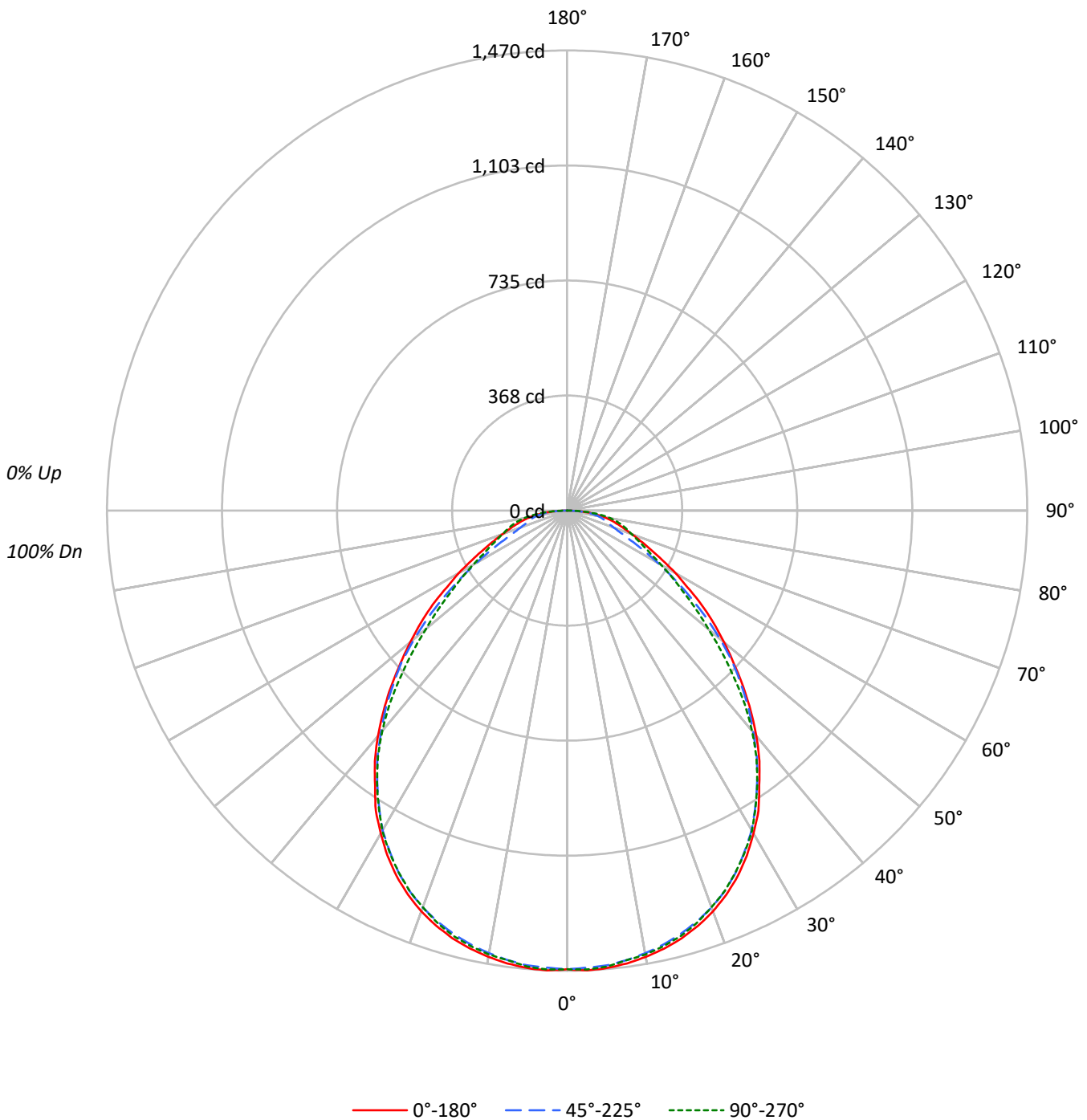
Input Watts (W): 30.624  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63
4	86	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29

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

	0°	45°	90°
0°	2244	2244	2244
5°	2255	2243	2248
10°	2251	2233	2239
15°	2243	2220	2230
20°	2221	2199	2198
25°	2178	2155	2153
30°	2106	2084	2089
35°	2000	1978	1980
40°	1881	1848	1837
45°	1724	1701	1633
50°	1559	1516	1402
55°	1399	1274	1208
60°	1225	1025	1063
65°	1069	806	978
70°	978	704	978
75°	978	749	1078
80°	1062	882	1229
85°	1165	996	1318



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.8	4.2
10°-20°	396.0	12.0
20°-30°	587.2	17.8
30°-40°	662.4	20.1
40°-50°	600.0	18.2
50°-60°	432.8	13.1
60°-70°	258.4	7.8
70°-80°	159.7	4.8
80°-90°	67.3	2.0
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°	1122.0	34.0
0°-40°	1784.4	54.0
0°-60°	2817.2	85.3
0°-90°	3302.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3302.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1465	1465	1465	1465	1465	
5°	1467	1465	1459	1457	1462	139
15°	1414	1406	1400	1401	1406	399
25°	1289	1282	1275	1270	1274	592
35°	1070	1068	1058	1058	1059	669
45°	796	791	785	766	754	613
55°	524	508	477	454	452	468
65°	295	260	222	253	270	297
75°	165	143	126	158	182	177
85°	66	58	57	74	75	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1465.4	1465.4	1465.4	1465.4	1465.4
2.5°	1470.4	1466.4	1461.3	1464.3	1466.9
5°	1466.9	1464.8	1458.7	1457.2	1462.3
7.5°	1459.2	1454.1	1448.5	1451.1	1449.0
10°	1447.5	1442.9	1435.8	1436.3	1439.8
12.5°	1433.2	1427.6	1419.9	1422.0	1425.0
15°	1414.4	1405.7	1400.1	1400.6	1406.2
17.5°	1390.4	1383.7	1376.6	1378.1	1380.6
20°	1362.8	1359.2	1349.0	1346.0	1348.5
22.5°	1328.1	1321.5	1315.9	1314.3	1314.9
25°	1288.8	1281.7	1275.0	1270.5	1274.0
27.5°	1242.9	1236.8	1228.1	1226.5	1229.6
30°	1190.8	1186.3	1178.6	1176.6	1181.1
32.5°	1137.8	1130.1	1119.5	1119.5	1120.4
35°	1069.9	1068.4	1057.7	1058.2	1059.2
37.5°	1008.7	1001.6	995.4	989.3	992.4
40°	940.8	932.7	924.5	920.5	918.9
42.5°	867.9	861.7	858.2	843.4	839.8
45°	795.9	790.9	785.3	765.8	754.1
47.5°	722.5	721.5	716.9	682.7	671.0
50°	654.1	652.6	636.2	600.0	588.3
52.5°	589.3	579.1	557.7	521.9	520.0
55°	524.0	507.7	477.0	453.6	452.5
57.5°	455.1	435.8	404.6	391.8	398.5
60°	400.0	370.4	334.7	336.3	346.9
62.5°	342.9	309.7	274.5	289.8	302.5
65°	294.9	259.7	222.5	252.6	269.9
67.5°	253.1	220.4	184.7	225.0	241.8
70°	218.4	191.9	157.1	199.5	218.4
72.5°	190.8	166.3	139.3	179.1	201.1
75°	165.3	143.4	126.5	157.6	182.1
77.5°	143.4	121.9	114.3	139.3	163.2
80°	120.4	101.0	100.0	121.4	139.3
82.5°	93.9	80.6	80.6	101.6	112.2
85°	66.3	58.1	56.7	74.0	75.0
87.5°	34.1	32.7	29.6	38.8	38.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)