

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: P294107

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294107  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-38-A19/156-UNV-L92765-W2A1-U-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3052.0 lumens  
Efficiency: N/A  
Efficacy: 121.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

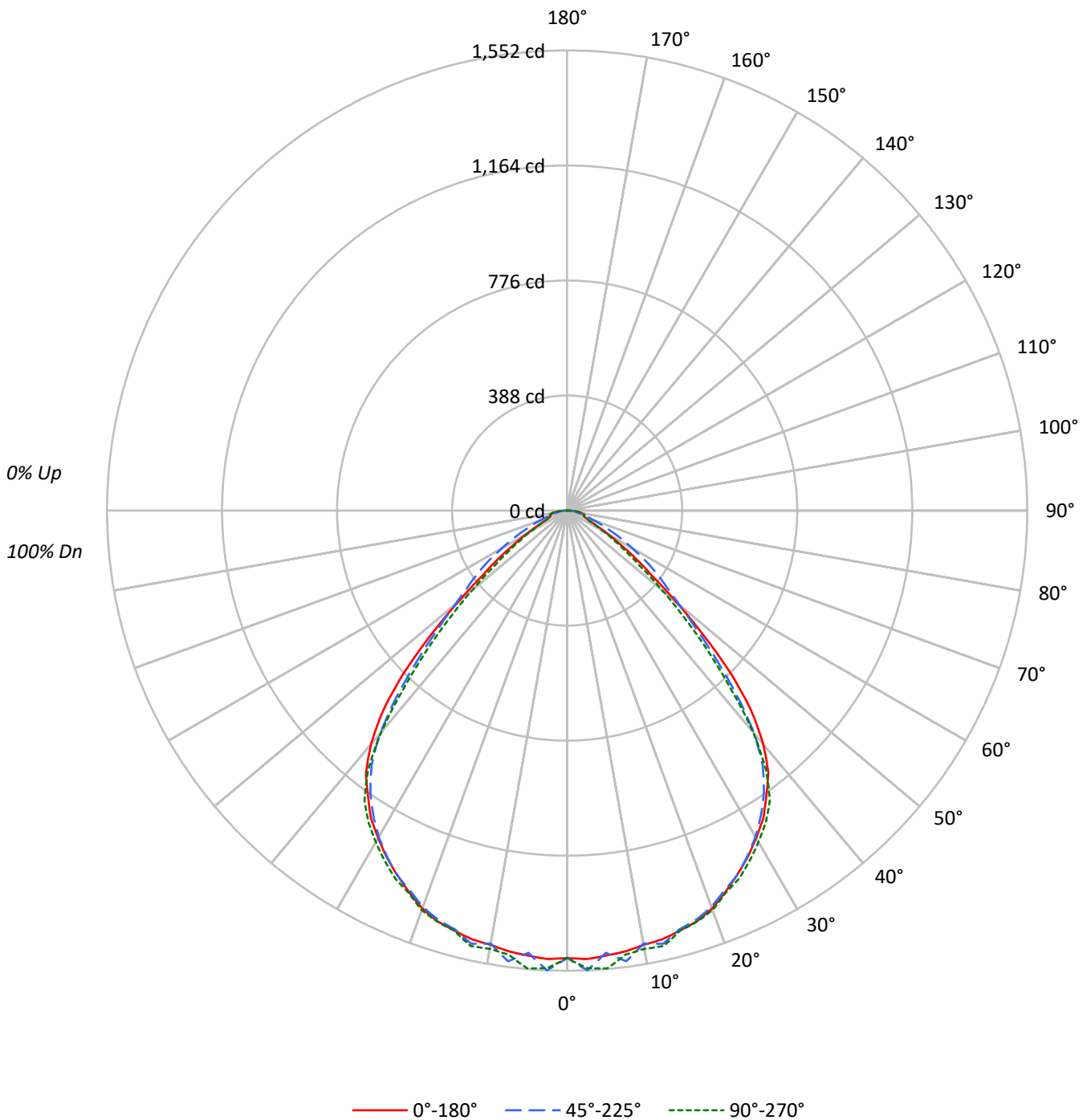
Input Watts (W): 25.11  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	90	86	100	94	89	85	91	86	83		88	84	81		85	82	79	77
3	95	86	79	74	93	85	78	73	82	77	72		79	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64		72	67	63		70	66	62	60
5	82	71	63	57	80	70	62	57	68	61	56		66	60	56		64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50		60	55	50		59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45		56	50	45		54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41		51	45	41		50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38		48	42	37		47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34		44	38	34		44	38	34	33

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

	0°	45°	90°
0°	2030	2030	2030
5°	2035	2022	2093
10°	2032	2026	2050
15°	2043	2037	2045
20°	2045	2037	2053
25°	2013	2015	2034
30°	1980	1974	2006
35°	1924	1901	1958
40°	1807	1726	1717
45°	1498	1355	1285
50°	1007	1028	878
55°	665	862	576
60°	426	681	394
65°	275	520	267
70°	243	372	243
75°	313	296	316
80°	384	254	403
85°	446	378	469



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.5	4.7
10°-20°	414.9	13.6
20°-30°	624.6	20.5
30°-40°	724.0	23.7
40°-50°	565.5	18.5
50°-60°	302.0	9.9
60°-70°	155.3	5.1
70°-80°	87.8	2.9
80°-90°	33.4	1.1
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°	1184.0	38.8
0°-40°	1908.0	62.5
0°-60°	2775.5	90.9
0°-90°	3052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3052.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1507	1549	1497	1538	1550	143
15°	1467	1476	1462	1471	1468	414
25°	1356	1352	1357	1355	1370	625
35°	1171	1166	1157	1180	1192	730
45°	787	788	712	706	675	593
55°	283	358	368	331	246	261
65°	86	180	163	179	84	95
75°	60	113	57	106	61	61
85°	29	38	24	38	30	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1509.1	1509.1	1509.1	1509.1	1509.1
2.5°	1514.0	1541.5	1552.3	1539.0	1544.9
5°	1506.7	1548.8	1496.9	1538.0	1549.8
7.5°	1499.8	1495.4	1533.1	1493.9	1510.6
10°	1487.1	1490.0	1482.7	1510.6	1500.8
12.5°	1481.2	1498.3	1496.9	1482.7	1504.2
15°	1467.0	1476.3	1462.1	1471.4	1468.0
17.5°	1452.8	1448.3	1446.9	1450.8	1454.2
20°	1428.3	1413.6	1422.4	1423.4	1434.1
22.5°	1393.0	1384.1	1386.1	1394.9	1395.9
25°	1356.2	1351.8	1357.2	1355.2	1370.4
27.5°	1318.0	1312.1	1315.5	1322.9	1332.2
30°	1274.4	1272.9	1270.4	1276.8	1291.0
32.5°	1231.2	1219.5	1217.5	1230.7	1246.9
35°	1171.4	1166.0	1157.2	1180.2	1192.0
37.5°	1114.6	1097.9	1083.7	1097.4	1102.3
40°	1028.8	1016.1	982.7	984.2	977.3
42.5°	923.4	914.1	850.4	839.1	820.0
45°	787.2	787.6	712.2	705.8	675.4
47.5°	628.8	656.8	591.1	583.8	538.7
50°	481.3	531.8	491.1	479.4	419.6
52.5°	361.2	435.2	422.5	397.0	314.7
55°	283.3	358.3	367.6	331.3	245.6
57.5°	213.2	295.1	310.3	280.4	189.7
60°	158.3	248.5	252.9	241.1	146.6
62.5°	117.6	211.2	205.4	206.8	108.8
65°	86.3	179.9	163.2	179.4	83.8
67.5°	70.6	155.9	126.9	155.4	68.1
70°	61.8	138.2	94.6	136.7	61.8
72.5°	59.8	126.9	75.0	121.6	60.3
75°	60.3	113.2	56.9	105.9	60.8
77.5°	55.4	93.1	43.1	90.2	57.8
80°	49.5	70.6	32.8	71.6	52.0
82.5°	42.2	51.5	26.5	52.9	43.6
85°	28.9	37.7	24.5	37.7	30.4
87.5°	13.7	22.5	15.2	21.6	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)