

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: P294104

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294104  
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-LD5-34-A19/156-UNV-L92765-W2A1-U-5700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3203.0 lumens  
Efficiency: N/A  
Efficacy: 135.1 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

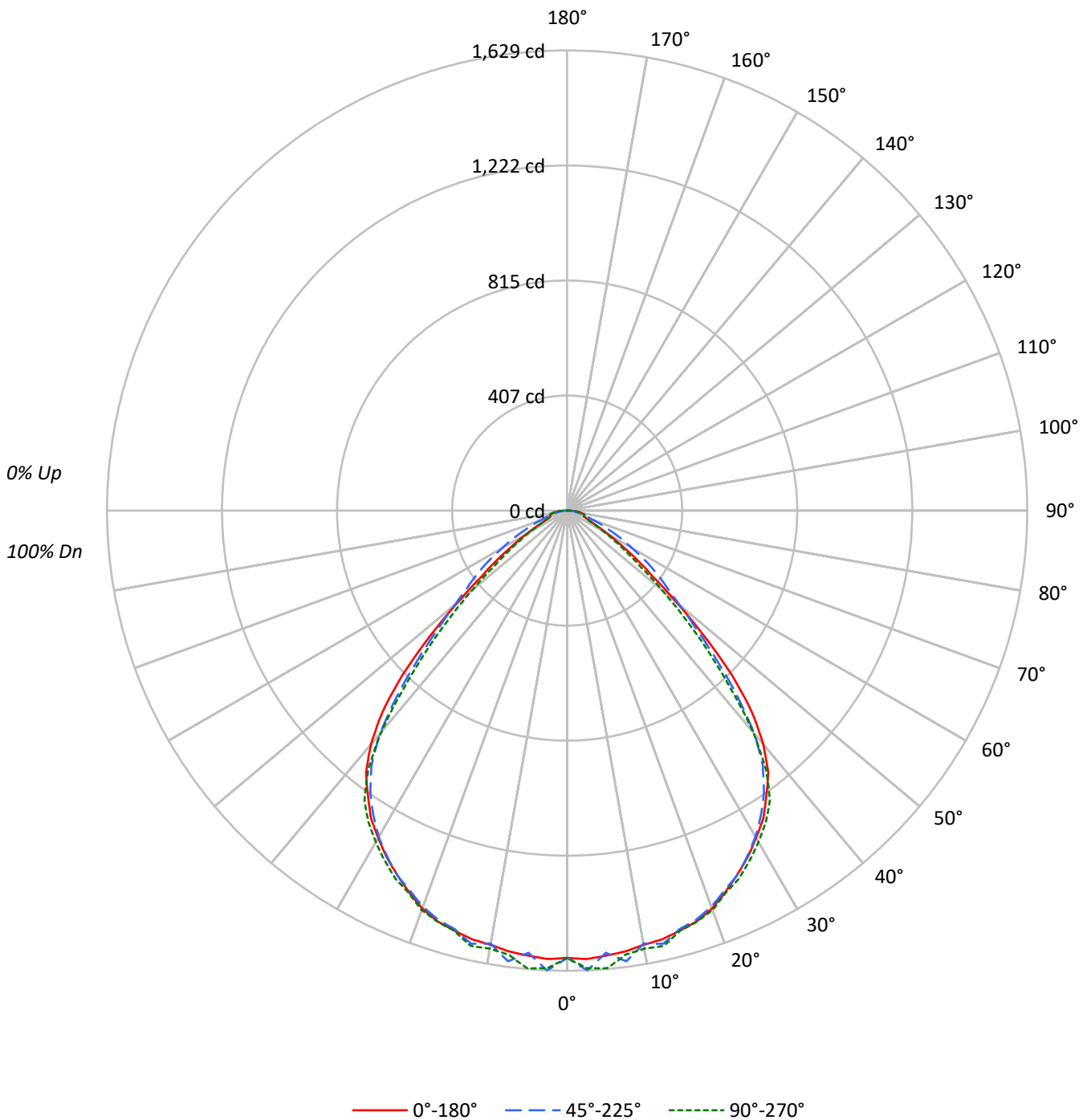
Input Watts (W): 23.715  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2131	2131	2131
5°	2136	2122	2197
10°	2132	2126	2152
15°	2145	2137	2146
20°	2146	2137	2155
25°	2113	2114	2135
30°	2078	2071	2105
35°	2019	1995	2055
40°	1896	1811	1802
45°	1572	1422	1349
50°	1057	1079	922
55°	697	905	605
60°	447	714	414
65°	288	545	280
70°	255	391	255
75°	329	310	332
80°	403	267	422
85°	468	397	492



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.6	4.7
10°-20°	435.4	13.6
20°-30°	655.5	20.5
30°-40°	759.8	23.7
40°-50°	593.5	18.5
50°-60°	316.9	9.9
60°-70°	163.0	5.1
70°-80°	92.2	2.9
80°-90°	35.0	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°	1242.6	38.8
0°-40°	2002.4	62.5
0°-60°	2912.8	90.9
0°-90°	3203.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3203.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1584	1584	1584	1584	1584	
5°	1581	1626	1571	1614	1626	150
15°	1540	1549	1534	1544	1541	435
25°	1423	1419	1424	1422	1438	656
35°	1229	1224	1214	1239	1251	766
45°	826	827	747	741	709	623
55°	297	376	386	348	258	274
65°	90	189	171	188	88	100
75°	63	119	60	111	64	64
85°	30	40	26	40	32	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1583.8	1583.8	1583.8	1583.8	1583.8
2.5°	1588.9	1617.7	1629.1	1615.2	1621.3
5°	1581.2	1625.5	1570.9	1614.1	1626.5
7.5°	1574.0	1569.4	1609.0	1567.8	1585.3
10°	1560.6	1563.7	1556.0	1585.3	1575.0
12.5°	1554.5	1572.5	1570.9	1556.0	1578.6
15°	1539.6	1549.3	1534.4	1544.2	1540.6
17.5°	1524.6	1520.0	1518.5	1522.6	1526.2
20°	1498.9	1483.5	1492.7	1493.8	1505.1
22.5°	1461.9	1452.6	1454.7	1463.9	1465.0
25°	1423.3	1418.7	1424.3	1422.3	1438.2
27.5°	1383.2	1377.0	1380.6	1388.3	1398.1
30°	1337.4	1335.9	1333.3	1340.0	1354.9
32.5°	1292.1	1279.8	1277.7	1291.6	1308.6
35°	1229.4	1223.7	1214.5	1238.6	1251.0
37.5°	1169.7	1152.2	1137.3	1151.7	1156.9
40°	1079.7	1066.3	1031.3	1032.9	1025.7
42.5°	969.1	959.3	892.5	880.6	860.6
45°	826.1	826.6	747.4	740.7	708.8
47.5°	660.0	689.3	620.3	612.6	565.3
50°	505.1	558.1	515.4	503.1	440.3
52.5°	379.1	456.8	443.4	416.7	330.2
55°	297.3	376.0	385.8	347.7	257.7
57.5°	223.8	309.7	325.6	294.2	199.1
60°	166.1	260.8	265.4	253.1	153.8
62.5°	123.5	221.7	215.5	217.1	114.2
65°	90.5	188.8	171.3	188.3	88.0
67.5°	74.1	163.6	133.2	163.1	71.5
70°	64.8	145.1	99.3	143.5	64.8
72.5°	62.8	133.2	78.7	127.6	63.3
75°	63.3	118.8	59.7	111.1	63.8
77.5°	58.1	97.7	45.3	94.6	60.7
80°	52.0	74.1	34.5	75.1	54.5
82.5°	44.2	54.0	27.8	55.6	45.8
85°	30.3	39.6	25.7	39.6	31.9
87.5°	14.4	23.7	15.9	22.6	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)