

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: P294109

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294109  
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-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3308.0 lumens  
Efficiency: N/A  
Efficacy: 128.9 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

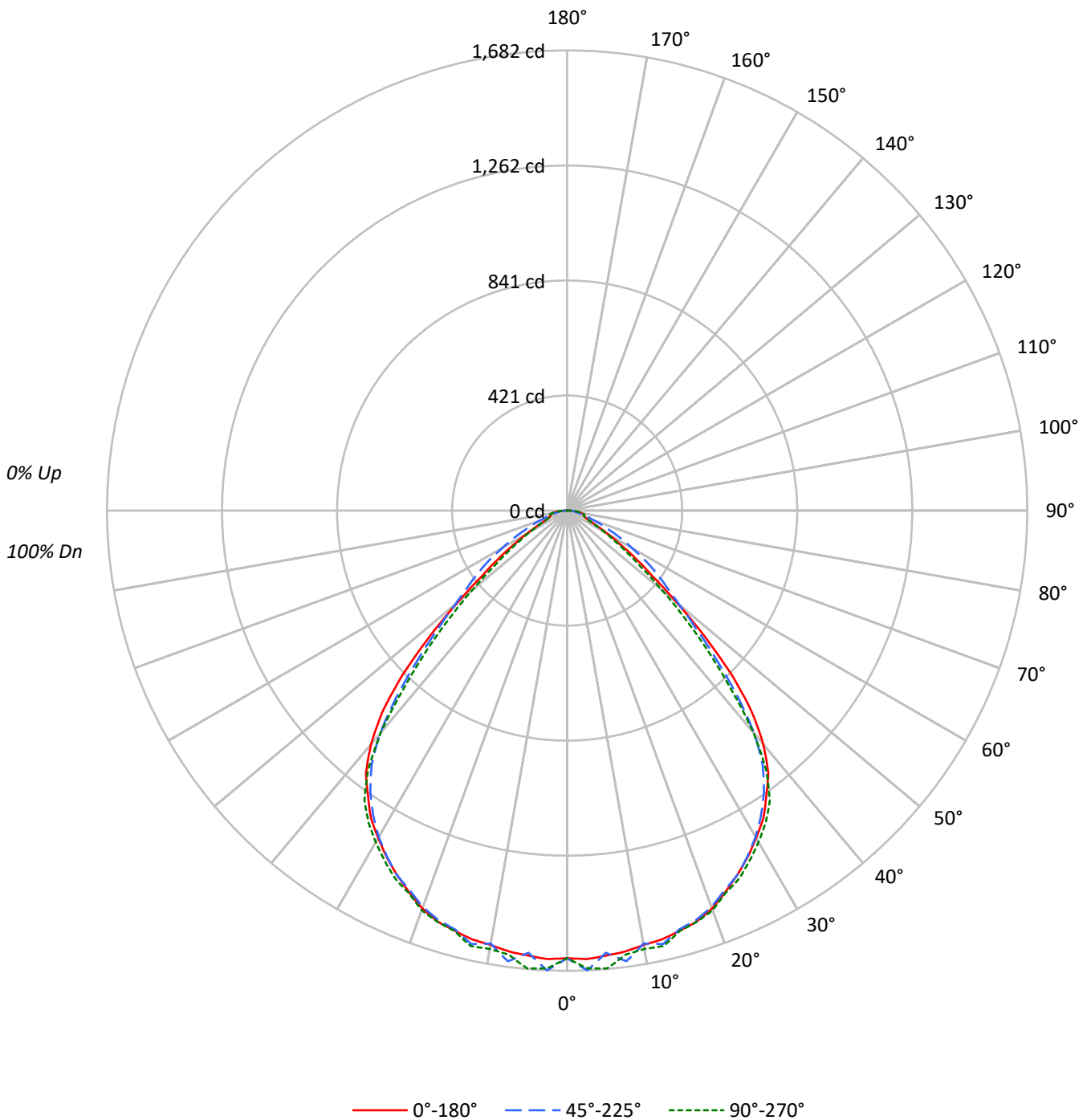
Input Watts (W): 25.668  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2201	2201	2201
5°	2206	2191	2269
10°	2202	2196	2222
15°	2215	2207	2216
20°	2217	2207	2226
25°	2182	2184	2205
30°	2146	2139	2174
35°	2086	2060	2122
40°	1959	1871	1861
45°	1623	1469	1393
50°	1092	1114	952
55°	720	935	624
60°	462	738	427
65°	298	563	289
70°	263	403	263
75°	339	320	343
80°	416	276	436
85°	483	411	508



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.6	4.7
10°-20°	449.7	13.6
20°-30°	677.0	20.5
30°-40°	784.7	23.7
40°-50°	613.0	18.5
50°-60°	327.3	9.9
60°-70°	168.3	5.1
70°-80°	95.2	2.9
80°-90°	36.2	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°	1283.3	38.8
0°-40°	2068.0	62.5
0°-60°	3008.3	90.9
0°-90°	3308.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3308.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1636	1636	1636	1636	1636	
5°	1633	1679	1622	1667	1680	155
15°	1590	1600	1585	1595	1591	449
25°	1470	1465	1471	1469	1485	677
35°	1270	1264	1254	1279	1292	792
45°	853	854	772	765	732	643
55°	307	388	398	359	266	283
65°	94	195	177	194	91	103
75°	65	123	62	115	66	66
85°	31	41	27	41	33	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1635.7	1635.7	1635.7	1635.7	1635.7
2.5°	1641.0	1670.8	1682.5	1668.1	1674.5
5°	1633.1	1678.7	1622.4	1667.1	1679.8
7.5°	1625.6	1620.8	1661.7	1619.2	1637.3
10°	1611.8	1615.0	1607.0	1637.3	1626.7
12.5°	1605.4	1624.0	1622.4	1607.0	1630.4
15°	1590.0	1600.1	1584.7	1594.8	1591.1
17.5°	1574.6	1569.8	1568.2	1572.5	1576.2
20°	1548.1	1532.1	1541.7	1542.7	1554.4
22.5°	1509.8	1500.2	1502.4	1511.9	1513.0
25°	1470.0	1465.2	1471.0	1468.9	1485.4
27.5°	1428.5	1422.1	1425.9	1433.8	1443.9
30°	1381.2	1379.6	1377.0	1383.9	1399.3
32.5°	1334.5	1321.7	1319.6	1334.0	1351.5
35°	1269.7	1263.8	1254.3	1279.2	1292.0
37.5°	1208.1	1190.0	1174.6	1189.5	1194.8
40°	1115.1	1101.3	1065.2	1066.7	1059.3
42.5°	1000.9	990.8	921.7	909.5	888.8
45°	853.2	853.7	771.9	765.0	732.1
47.5°	681.6	711.9	640.7	632.7	583.8
50°	521.7	576.4	532.3	519.6	454.7
52.5°	391.5	471.7	457.9	430.3	341.1
55°	307.1	388.3	398.4	359.1	266.2
57.5°	231.1	319.8	336.3	303.9	205.6
60°	171.6	269.3	274.1	261.4	158.8
62.5°	127.5	229.0	222.6	224.2	117.9
65°	93.5	195.0	176.9	194.4	90.8
67.5°	76.5	168.9	137.6	168.4	73.8
70°	66.9	149.8	102.5	148.2	66.9
72.5°	64.8	137.6	81.3	131.7	65.3
75°	65.3	122.7	61.6	114.7	65.9
77.5°	60.0	100.9	46.7	97.7	62.7
80°	53.7	76.5	35.6	77.6	56.3
82.5°	45.7	55.8	28.7	57.4	47.3
85°	31.3	40.9	26.6	40.9	32.9
87.5°	14.9	24.4	16.5	23.4	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)