

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: P293978

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293978  
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-L82765-W2A1-U-5700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3542.0 lumens  
Efficiency: N/A  
Efficacy: 149.9 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

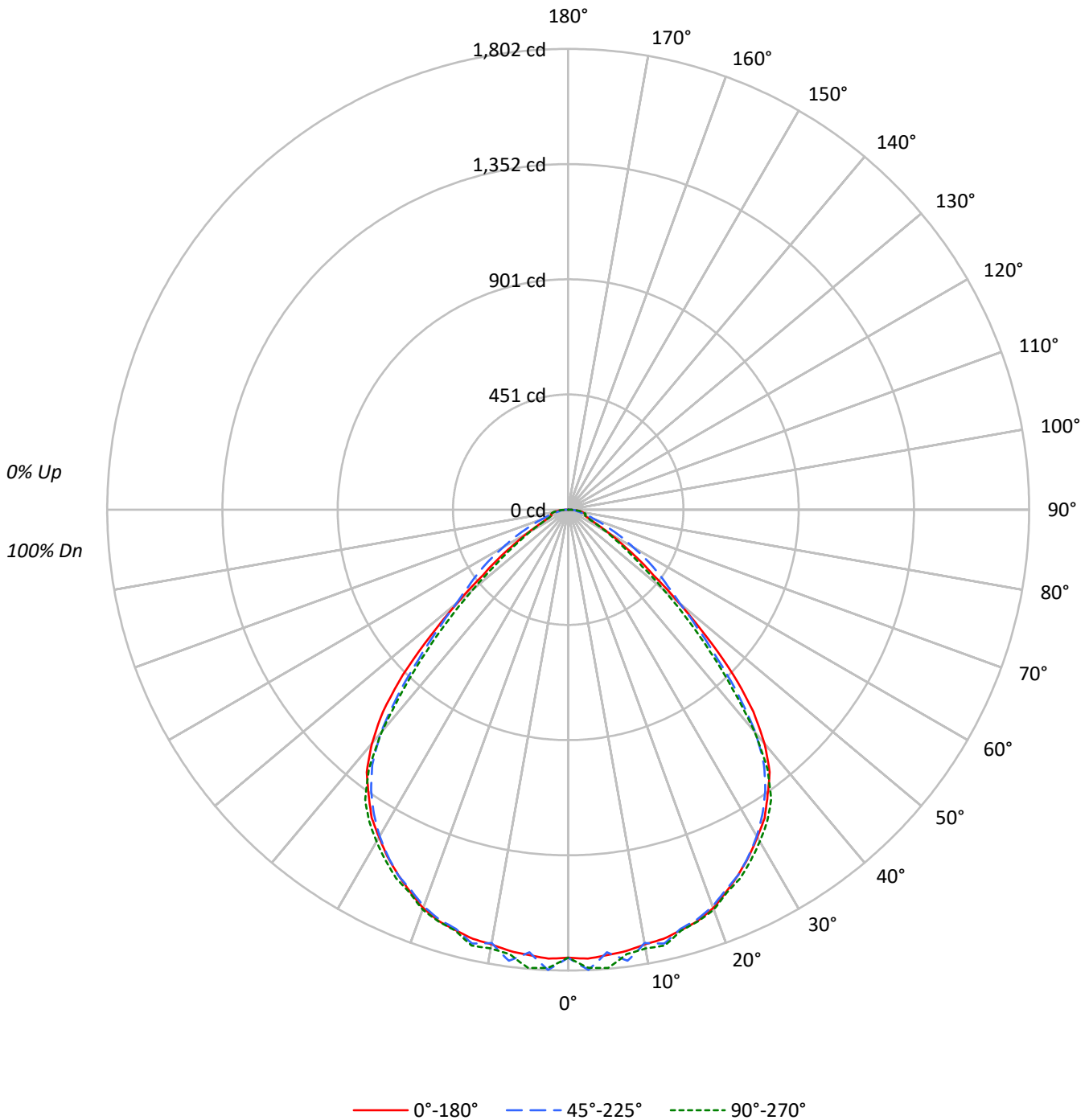
Input Watts (W): 23.622  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

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

	0°	45°	90°
0°	2356	2356	2356
5°	2362	2346	2429
10°	2358	2351	2380
15°	2372	2364	2373
20°	2373	2364	2383
25°	2337	2338	2361
30°	2298	2291	2328
35°	2233	2206	2272
40°	2097	2003	1992
45°	1738	1573	1491
50°	1169	1193	1019
55°	771	1001	669
60°	494	790	458
65°	319	603	310
70°	282	432	282
75°	364	343	366
80°	446	295	467
85°	519	438	545



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.7	4.7
10°-20°	481.5	13.6
20°-30°	724.9	20.5
30°-40°	840.2	23.7
40°-50°	656.3	18.5
50°-60°	350.5	9.9
60°-70°	180.2	5.1
70°-80°	102.0	2.9
80°-90°	38.7	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°	1374.1	38.8
0°-40°	2214.3	62.5
0°-60°	3221.1	90.9
0°-90°	3542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3542.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1751	1751	1751	1751	1751	
5°	1749	1798	1737	1785	1799	166
15°	1702	1713	1697	1708	1704	481
25°	1574	1569	1575	1573	1590	725
35°	1360	1353	1343	1370	1383	848
45°	914	914	826	819	784	688
55°	329	416	427	384	285	303
65°	100	209	189	208	97	110
75°	70	131	66	123	70	71
85°	34	44	28	44	35	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1751.4	1751.4	1751.4	1751.4	1751.4
2.5°	1757.1	1789.0	1801.5	1786.1	1792.9
5°	1748.6	1797.5	1737.2	1785.0	1798.6
7.5°	1740.6	1735.5	1779.3	1733.8	1753.1
10°	1725.8	1729.2	1720.7	1753.1	1741.7
12.5°	1719.0	1738.9	1737.2	1720.7	1745.7
15°	1702.5	1713.3	1696.8	1707.6	1703.6
17.5°	1686.0	1680.9	1679.2	1683.7	1687.7
20°	1657.6	1640.5	1650.7	1651.9	1664.4
22.5°	1616.6	1606.4	1608.6	1618.9	1620.0
25°	1573.9	1568.8	1575.1	1572.8	1590.4
27.5°	1529.6	1522.7	1526.7	1535.3	1546.1
30°	1478.9	1477.2	1474.4	1481.8	1498.3
32.5°	1428.9	1415.2	1413.0	1428.3	1447.1
35°	1359.5	1353.2	1343.0	1369.7	1383.4
37.5°	1293.5	1274.2	1257.7	1273.6	1279.3
40°	1194.0	1179.2	1140.5	1142.2	1134.2
42.5°	1071.7	1060.9	986.9	973.8	951.6
45°	913.5	914.1	826.5	819.1	783.8
47.5°	729.8	762.2	686.0	677.5	625.1
50°	558.6	617.2	570.0	556.3	486.9
52.5°	419.2	505.1	490.3	460.7	365.2
55°	328.8	415.8	426.6	384.5	285.0
57.5°	247.4	342.4	360.1	325.4	220.1
60°	183.7	288.4	293.5	279.9	170.1
62.5°	136.5	245.2	238.3	240.0	126.3
65°	100.1	208.8	189.4	208.2	97.3
67.5°	81.9	180.9	147.3	180.3	79.1
70°	71.7	160.4	109.8	158.7	71.7
72.5°	69.4	147.3	87.0	141.1	70.0
75°	70.0	131.4	66.0	122.9	70.5
77.5°	64.3	108.1	50.1	104.7	67.1
80°	57.5	81.9	38.1	83.0	60.3
82.5°	48.9	59.7	30.7	61.4	50.6
85°	33.6	43.8	28.4	43.8	35.3
87.5°	15.9	26.2	17.6	25.0	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)