

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: P293971

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293971  
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-2700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3118.0 lumens  
Efficiency: N/A  
Efficacy: 135.7 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

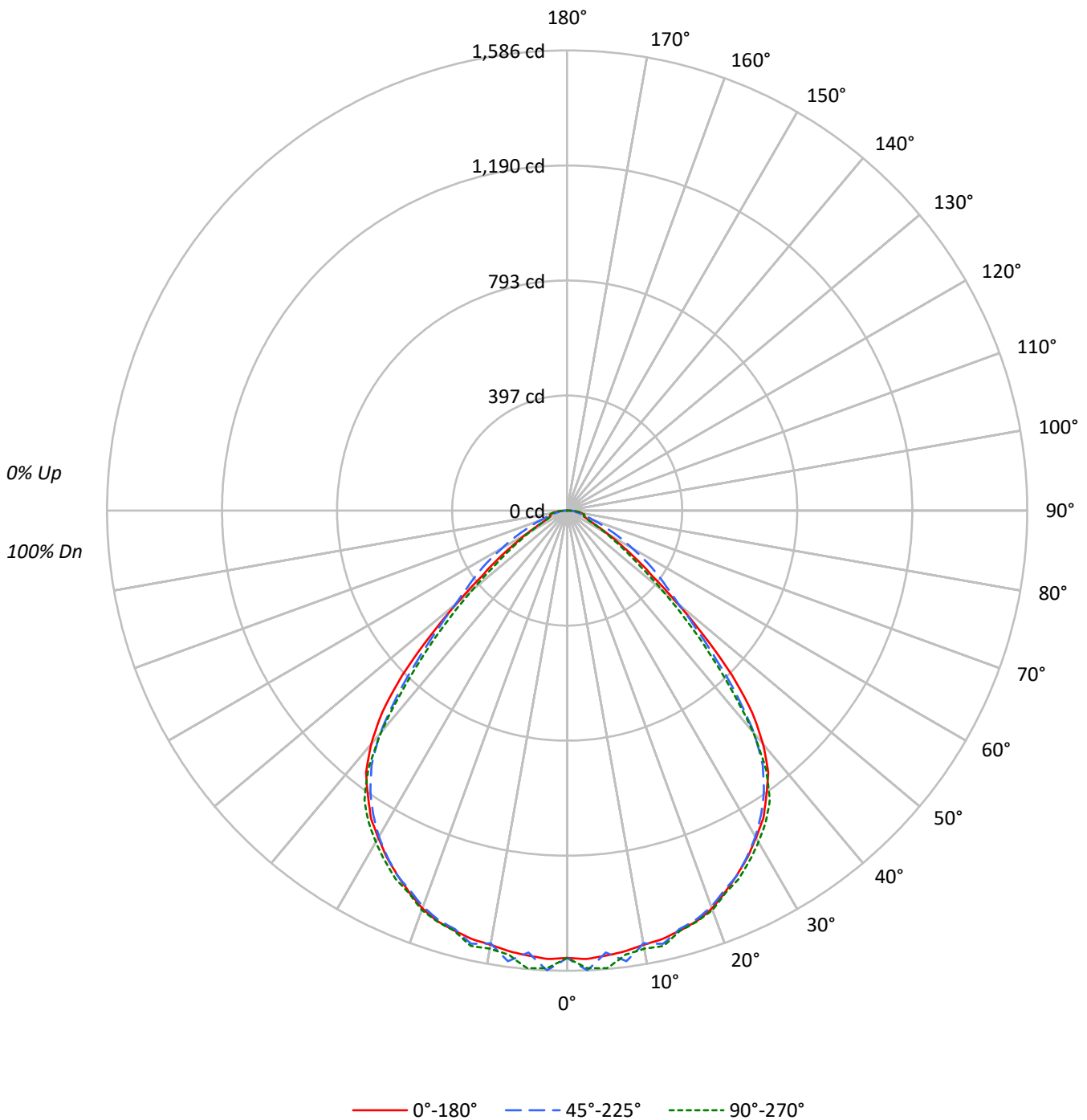
Input Watts (W): 22.971  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2074	2074	2074
5°	2079	2065	2138
10°	2076	2069	2095
15°	2088	2081	2089
20°	2089	2081	2098
25°	2057	2058	2079
30°	2023	2016	2049
35°	1966	1942	2000
40°	1846	1763	1754
45°	1530	1384	1313
50°	1029	1050	897
55°	679	881	589
60°	435	695	403
65°	280	531	273
70°	248	380	248
75°	320	302	323
80°	392	260	411
85°	455	386	479



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.6	4.7
10°-20°	423.9	13.6
20°-30°	638.1	20.5
30°-40°	739.6	23.7
40°-50°	577.8	18.5
50°-60°	308.5	9.9
60°-70°	158.6	5.1
70°-80°	89.7	2.9
80°-90°	34.1	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°	1209.6	38.8
0°-40°	1949.2	62.5
0°-60°	2835.5	90.9
0°-90°	3118.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3118.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1542	1542	1542	1542	1542	
5°	1539	1582	1529	1571	1583	146
15°	1499	1508	1494	1503	1500	423
25°	1386	1381	1386	1384	1400	638
35°	1197	1191	1182	1206	1218	746
45°	804	805	728	721	690	606
55°	289	366	376	338	251	267
65°	88	184	167	183	86	97
75°	62	116	58	108	62	62
85°	30	39	25	39	31	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1541.8	1541.8	1541.8	1541.8	1541.8
2.5°	1546.8	1574.8	1585.8	1572.3	1578.3
5°	1539.3	1582.3	1529.2	1571.3	1583.3
7.5°	1532.2	1527.7	1566.3	1526.2	1543.3
10°	1519.2	1522.2	1514.7	1543.3	1533.2
12.5°	1513.2	1530.7	1529.2	1514.7	1536.8
15°	1498.7	1508.2	1493.7	1503.2	1499.7
17.5°	1484.2	1479.7	1478.2	1482.2	1485.7
20°	1459.1	1444.1	1453.1	1454.1	1465.1
22.5°	1423.1	1414.1	1416.1	1425.1	1426.1
25°	1385.5	1381.0	1386.5	1384.5	1400.1
27.5°	1346.5	1340.5	1344.0	1351.5	1361.0
30°	1301.9	1300.4	1297.9	1304.4	1318.9
32.5°	1257.8	1245.8	1243.8	1257.3	1273.9
35°	1196.8	1191.2	1182.2	1205.8	1217.8
37.5°	1138.7	1121.6	1107.1	1121.1	1126.2
40°	1051.0	1038.0	1004.0	1005.5	998.5
42.5°	943.4	933.9	868.8	857.3	837.7
45°	804.2	804.7	727.6	721.1	690.0
47.5°	642.4	671.0	603.9	596.4	550.3
50°	491.7	543.3	501.7	489.7	428.6
52.5°	369.0	444.7	431.6	405.6	321.5
55°	289.4	366.0	375.6	338.5	250.9
57.5°	217.8	301.4	317.0	286.4	193.8
60°	161.7	253.9	258.4	246.4	149.7
62.5°	120.2	215.8	209.8	211.3	111.2
65°	88.1	183.8	166.7	183.3	85.6
67.5°	72.1	159.2	129.7	158.7	69.6
70°	63.1	141.2	96.6	139.7	63.1
72.5°	61.1	129.7	76.6	124.2	61.6
75°	61.6	115.7	58.1	108.2	62.1
77.5°	56.6	95.1	44.1	92.1	59.1
80°	50.6	72.1	33.5	73.1	53.1
82.5°	43.1	52.6	27.0	54.1	44.6
85°	29.5	38.6	25.0	38.6	31.0
87.5°	14.0	23.0	15.5	22.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)