

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: P293966

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293966  
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-LD5-30-A19/156-UNV-L82765-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3014.0 lumens  
Efficiency: N/A  
Efficacy: 148.0 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

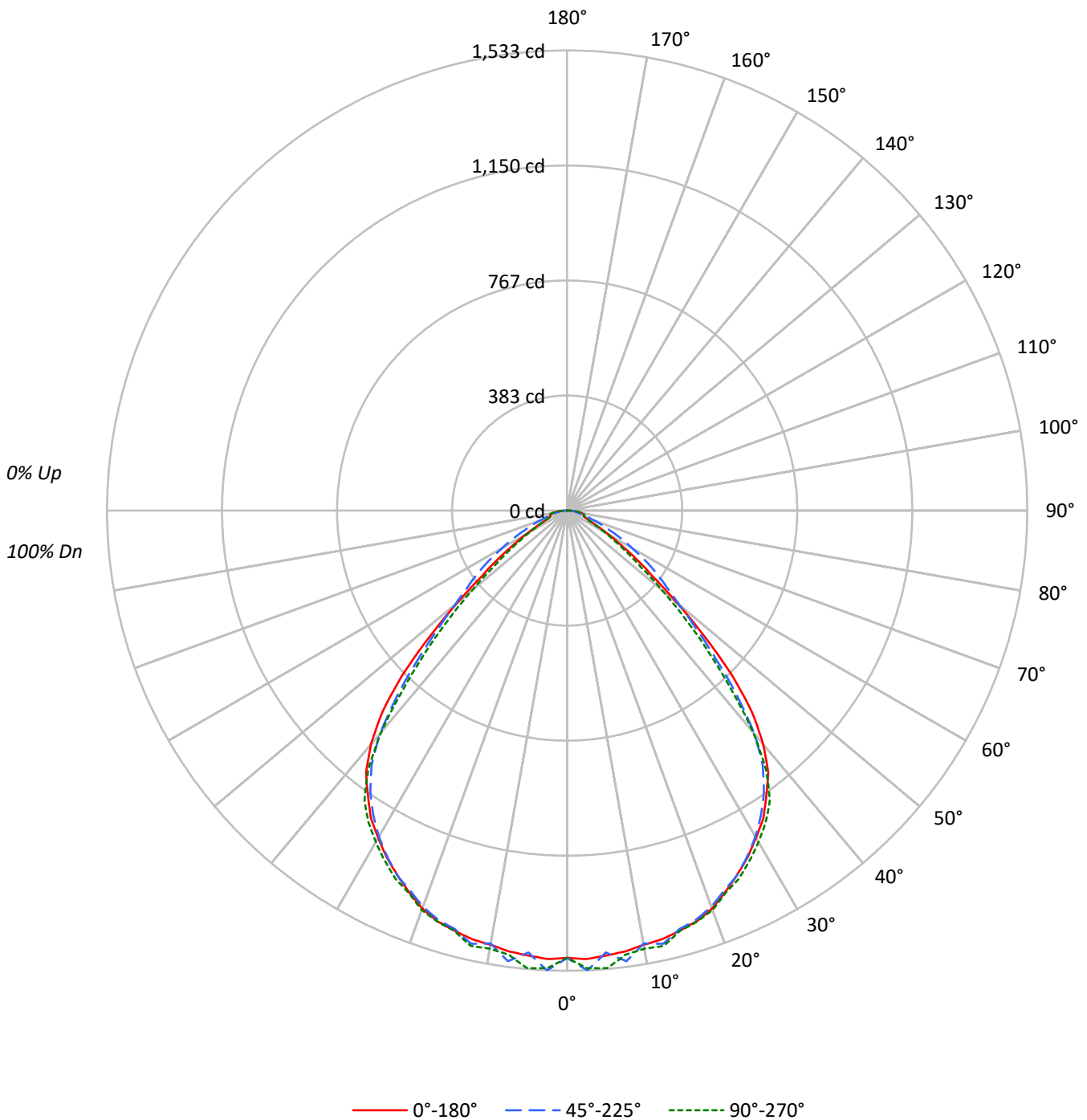
Input Watts (W): 20.367  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2005	2005	2005
5°	2010	1996	2067
10°	2006	2000	2025
15°	2018	2011	2019
20°	2020	2011	2028
25°	1988	1990	2009
30°	1955	1949	1981
35°	1900	1877	1934
40°	1785	1705	1695
45°	1479	1338	1269
50°	995	1015	867
55°	656	852	569
60°	421	672	389
65°	271	513	264
70°	240	367	240
75°	309	292	312
80°	379	251	397
85°	442	374	463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.7	4.7
10°-20°	409.7	13.6
20°-30°	616.8	20.5
30°-40°	715.0	23.7
40°-50°	558.5	18.5
50°-60°	298.2	9.9
60°-70°	153.4	5.1
70°-80°	86.8	2.9
80°-90°	33.0	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°	1169.3	38.8
0°-40°	1884.2	62.5
0°-60°	2740.9	90.9
0°-90°	3014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3014.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1488	1530	1478	1519	1530	141
15°	1449	1458	1444	1453	1450	409
25°	1339	1335	1340	1338	1353	617
35°	1157	1152	1143	1166	1177	721
45°	777	778	703	697	667	586
55°	280	354	363	327	242	258
65°	85	178	161	177	83	94
75°	60	112	56	105	60	60
85°	29	37	24	37	30	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1490.3	1490.3	1490.3	1490.3	1490.3
2.5°	1495.2	1522.3	1532.9	1519.9	1525.7
5°	1487.9	1529.5	1478.2	1518.9	1530.5
7.5°	1481.1	1476.8	1514.1	1475.3	1491.8
10°	1468.6	1471.5	1464.2	1491.8	1482.1
12.5°	1462.7	1479.7	1478.2	1464.2	1485.5
15°	1448.7	1457.9	1443.9	1453.1	1449.7
17.5°	1434.7	1430.3	1428.9	1432.7	1436.1
20°	1410.5	1396.0	1404.7	1405.6	1416.3
22.5°	1375.6	1366.9	1368.8	1377.6	1378.5
25°	1339.3	1335.0	1340.3	1338.4	1353.4
27.5°	1301.6	1295.8	1299.1	1306.4	1315.6
30°	1258.5	1257.0	1254.6	1260.9	1274.9
32.5°	1215.9	1204.3	1202.3	1215.4	1231.4
35°	1156.8	1151.5	1142.8	1165.6	1177.2
37.5°	1100.7	1084.2	1070.2	1083.7	1088.6
40°	1016.0	1003.4	970.5	971.9	965.2
42.5°	911.9	902.7	839.8	828.7	809.8
45°	777.4	777.8	703.3	697.0	667.0
47.5°	621.0	648.6	583.7	576.5	532.0
50°	475.3	525.2	485.0	473.4	414.3
52.5°	356.7	429.8	417.2	392.1	310.7
55°	279.8	353.8	363.0	327.2	242.5
57.5°	210.6	291.4	306.4	276.9	187.3
60°	156.3	245.4	249.8	238.1	144.7
62.5°	116.2	208.6	202.8	204.3	107.5
65°	85.2	177.6	161.2	177.2	82.8
67.5°	69.7	153.9	125.4	153.4	67.3
70°	61.0	136.5	93.4	135.0	61.0
72.5°	59.1	125.4	74.1	120.0	59.5
75°	59.5	111.8	56.1	104.6	60.0
77.5°	54.7	92.0	42.6	89.1	57.1
80°	48.9	69.7	32.4	70.7	51.3
82.5°	41.6	50.8	26.1	52.3	43.1
85°	28.6	37.3	24.2	37.3	30.0
87.5°	13.6	22.3	15.0	21.3	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)