

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: P293920

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293920  
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-L83050-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: 3145.0 lumens  
Efficiency: N/A  
Efficacy: 149.6 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

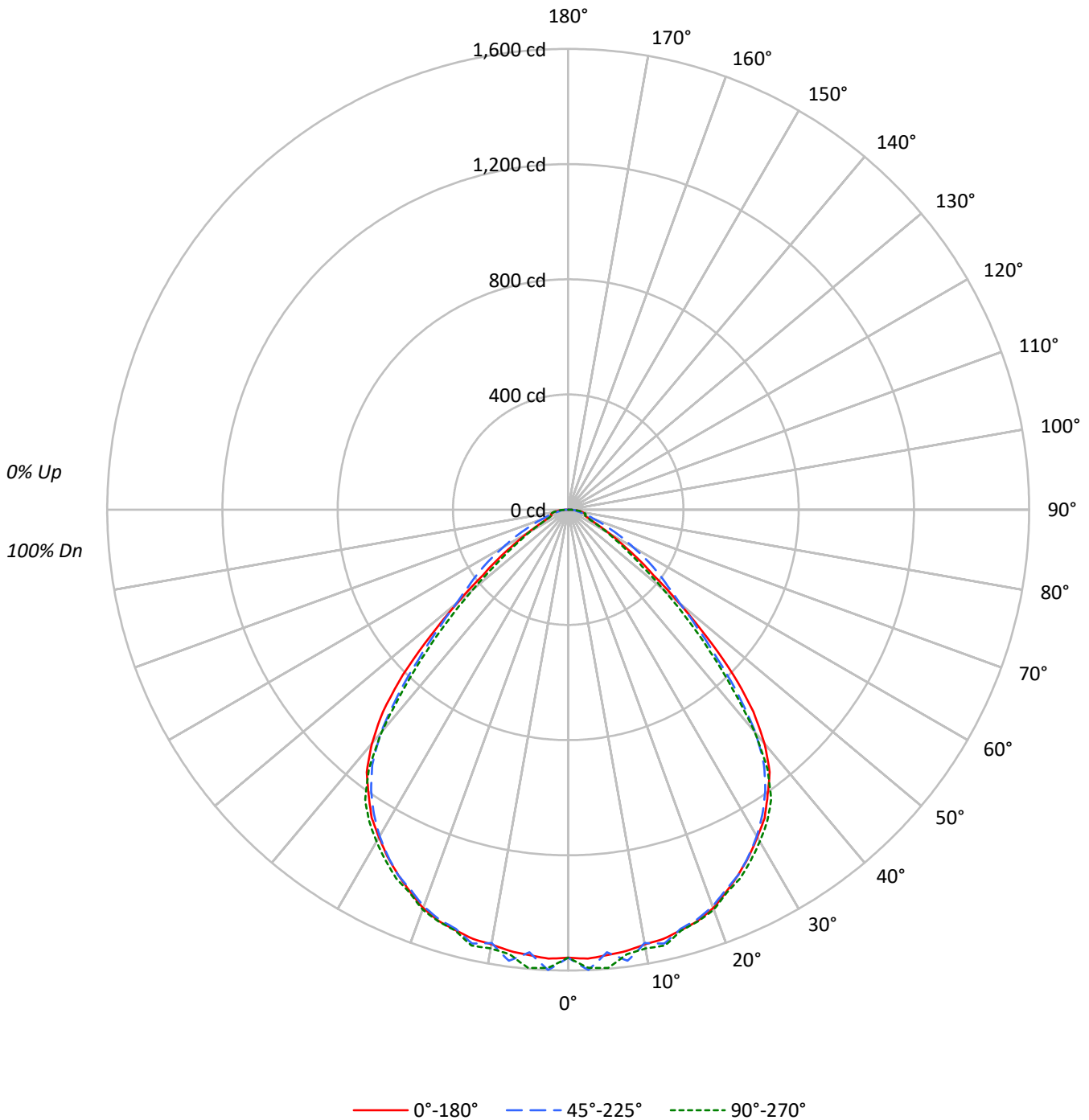
Input Watts (W): 21.018  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2092	2092	2092
5°	2097	2083	2157
10°	2094	2087	2113
15°	2106	2099	2107
20°	2107	2099	2116
25°	2075	2076	2097
30°	2040	2034	2067
35°	1983	1959	2018
40°	1862	1779	1769
45°	1543	1396	1324
50°	1038	1059	905
55°	685	889	593
60°	439	701	406
65°	283	535	275
70°	250	384	250
75°	323	305	325
80°	395	262	415
85°	460	391	483



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.9	4.7
10°-20°	427.5	13.6
20°-30°	643.7	20.5
30°-40°	746.0	23.7
40°-50°	582.8	18.5
50°-60°	311.2	9.9
60°-70°	160.0	5.1
70°-80°	90.5	2.9
80°-90°	34.4	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°	1220.1	38.8
0°-40°	1966.1	62.5
0°-60°	2860.1	90.9
0°-90°	3145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3145.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1555	1555	1555	1555	1555	
5°	1553	1596	1542	1585	1597	148
15°	1512	1521	1507	1516	1513	427
25°	1398	1393	1398	1396	1412	644
35°	1207	1202	1192	1216	1228	753
45°	811	812	734	727	696	611
55°	292	369	379	341	253	269
65°	89	185	168	185	86	98
75°	62	117	59	109	63	63
85°	30	39	25	39	31	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1555.1	1555.1	1555.1	1555.1	1555.1
2.5°	1560.2	1588.4	1599.6	1585.9	1592.0
5°	1552.6	1596.0	1542.5	1584.9	1597.0
7.5°	1545.5	1541.0	1579.9	1539.5	1556.6
10°	1532.4	1535.4	1527.8	1556.6	1546.5
12.5°	1526.3	1544.0	1542.5	1527.8	1550.1
15°	1511.7	1521.3	1506.6	1516.2	1512.7
17.5°	1497.0	1492.5	1491.0	1495.0	1498.5
20°	1471.8	1456.6	1465.7	1466.7	1477.8
22.5°	1435.4	1426.3	1428.3	1437.4	1438.4
25°	1397.5	1393.0	1398.5	1396.5	1412.2
27.5°	1358.1	1352.1	1355.6	1363.2	1372.8
30°	1313.2	1311.7	1309.1	1315.7	1330.4
32.5°	1268.7	1256.6	1254.6	1268.2	1284.9
35°	1207.1	1201.6	1192.5	1216.2	1228.3
37.5°	1148.5	1131.4	1116.7	1130.9	1135.9
40°	1060.1	1047.0	1012.7	1014.2	1007.1
42.5°	951.6	942.0	876.3	864.7	845.0
45°	811.1	811.6	733.9	727.3	696.0
47.5°	648.0	676.8	609.1	601.5	555.1
50°	496.0	548.0	506.1	494.0	432.3
52.5°	372.2	448.5	435.4	409.1	324.3
55°	291.9	369.2	378.8	341.4	253.0
57.5°	219.7	304.1	319.7	288.9	195.5
60°	163.1	256.1	260.6	248.5	151.0
62.5°	121.2	217.7	211.6	213.1	112.1
65°	88.9	185.4	168.2	184.9	86.4
67.5°	72.7	160.6	130.8	160.1	70.2
70°	63.6	142.4	97.5	140.9	63.6
72.5°	61.6	130.8	77.3	125.3	62.1
75°	62.1	116.7	58.6	109.1	62.6
77.5°	57.1	96.0	44.4	92.9	59.6
80°	51.0	72.7	33.8	73.7	53.5
82.5°	43.4	53.0	27.3	54.5	45.0
85°	29.8	38.9	25.3	38.9	31.3
87.5°	14.1	23.2	15.7	22.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)