

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: P293919

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293919  
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-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3114.0 lumens  
Efficiency: N/A  
Efficacy: 152.2 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

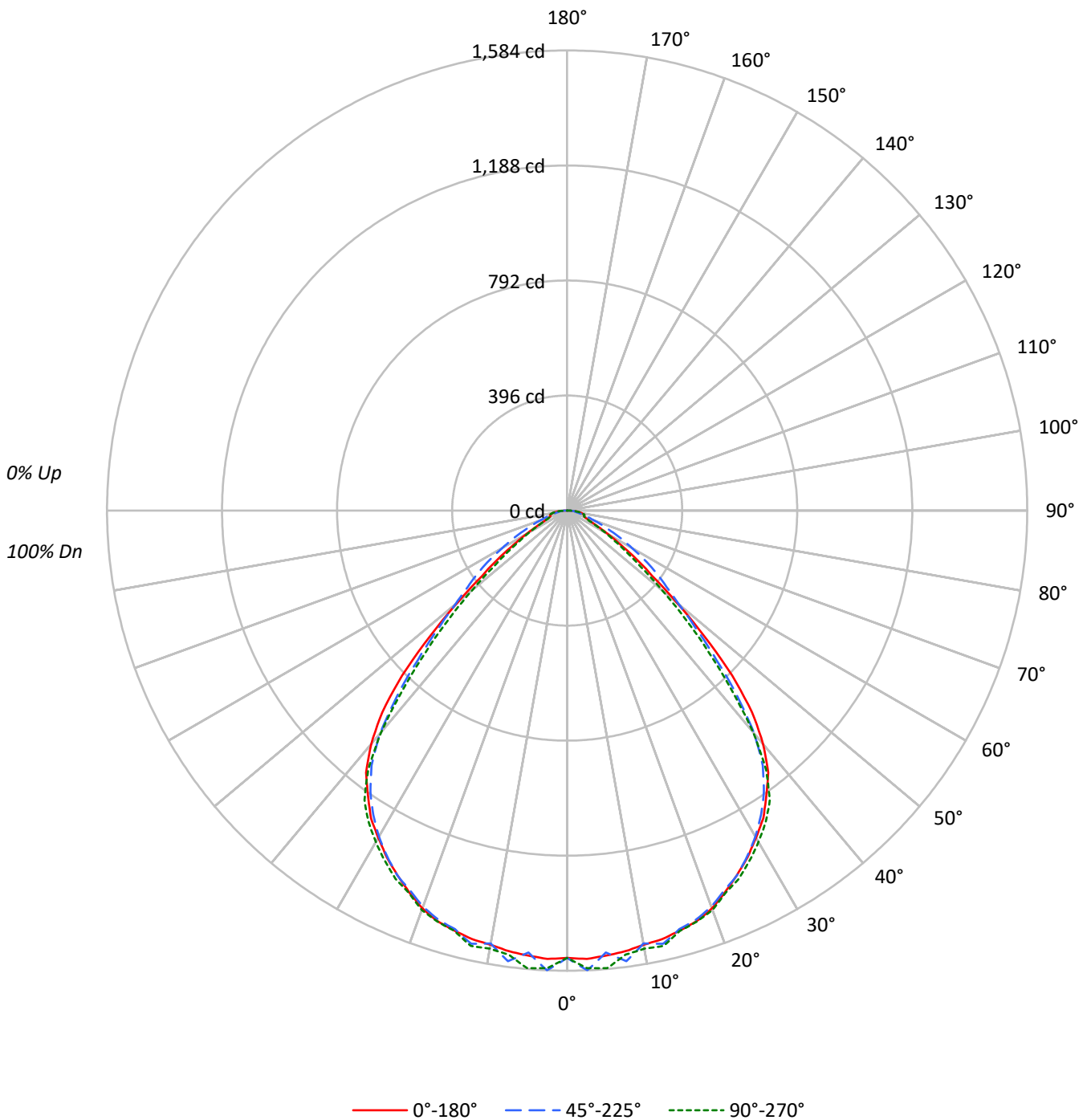
Input Watts (W): 20.46  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2072	2072	2072
5°	2076	2063	2136
10°	2073	2067	2092
15°	2085	2078	2086
20°	2087	2078	2095
25°	2054	2056	2076
30°	2020	2014	2046
35°	1963	1939	1998
40°	1844	1761	1751
45°	1528	1383	1311
50°	1028	1049	896
55°	678	880	588
60°	435	694	402
65°	280	530	272
70°	248	380	248
75°	320	302	322
80°	391	260	411
85°	455	386	479



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.4	4.7
10°-20°	423.3	13.6
20°-30°	637.3	20.5
30°-40°	738.7	23.7
40°-50°	577.0	18.5
50°-60°	308.1	9.9
60°-70°	158.4	5.1
70°-80°	89.6	2.9
80°-90°	34.0	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°	1208.1	38.8
0°-40°	1946.7	62.5
0°-60°	2831.9	90.9
0°-90°	3114.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1540	1540	1540	1540	1540	
5°	1537	1580	1527	1569	1581	146
15°	1497	1506	1492	1501	1498	423
25°	1384	1379	1385	1383	1398	638
35°	1195	1190	1181	1204	1216	745
45°	803	804	727	720	689	605
55°	289	366	375	338	250	267
65°	88	184	166	183	86	97
75°	62	116	58	108	62	62
85°	30	38	25	38	31	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1539.8	1539.8	1539.8	1539.8	1539.8
2.5°	1544.8	1572.8	1583.8	1570.3	1576.3
5°	1537.3	1580.3	1527.3	1569.3	1581.3
7.5°	1530.3	1525.8	1564.3	1524.3	1541.3
10°	1517.3	1520.3	1512.8	1541.3	1531.3
12.5°	1511.3	1528.8	1527.3	1512.8	1534.8
15°	1496.8	1506.3	1491.8	1501.3	1497.8
17.5°	1482.3	1477.8	1476.3	1480.3	1483.8
20°	1457.3	1442.3	1451.3	1452.3	1463.3
22.5°	1421.3	1412.3	1414.3	1423.3	1424.3
25°	1383.8	1379.3	1384.8	1382.8	1398.3
27.5°	1344.7	1338.7	1342.2	1349.7	1359.3
30°	1300.2	1298.7	1296.2	1302.7	1317.2
32.5°	1256.2	1244.2	1242.2	1255.7	1272.2
35°	1195.2	1189.7	1180.7	1204.2	1216.2
37.5°	1137.2	1120.2	1105.7	1119.7	1124.7
40°	1049.7	1036.7	1002.7	1004.2	997.2
42.5°	942.2	932.7	867.7	856.2	836.7
45°	803.1	803.6	726.6	720.1	689.1
47.5°	641.6	670.1	603.1	595.6	549.6
50°	491.1	542.6	501.1	489.1	428.1
52.5°	368.6	444.1	431.1	405.1	321.1
55°	289.1	365.6	375.1	338.1	250.5
57.5°	217.5	301.1	316.6	286.1	193.5
60°	161.5	253.5	258.0	246.0	149.5
62.5°	120.0	215.5	209.5	211.0	111.0
65°	88.0	183.5	166.5	183.0	85.5
67.5°	72.0	159.0	129.5	158.5	69.5
70°	63.0	141.0	96.5	139.5	63.0
72.5°	61.0	129.5	76.5	124.0	61.5
75°	61.5	115.5	58.0	108.0	62.0
77.5°	56.5	95.0	44.0	92.0	59.0
80°	50.5	72.0	33.5	73.0	53.0
82.5°	43.0	52.5	27.0	54.0	44.5
85°	29.5	38.5	25.0	38.5	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)