

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: P294092

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294092  
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-L92765-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2688.0 lumens  
Efficiency: N/A  
Efficacy: 132.0 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

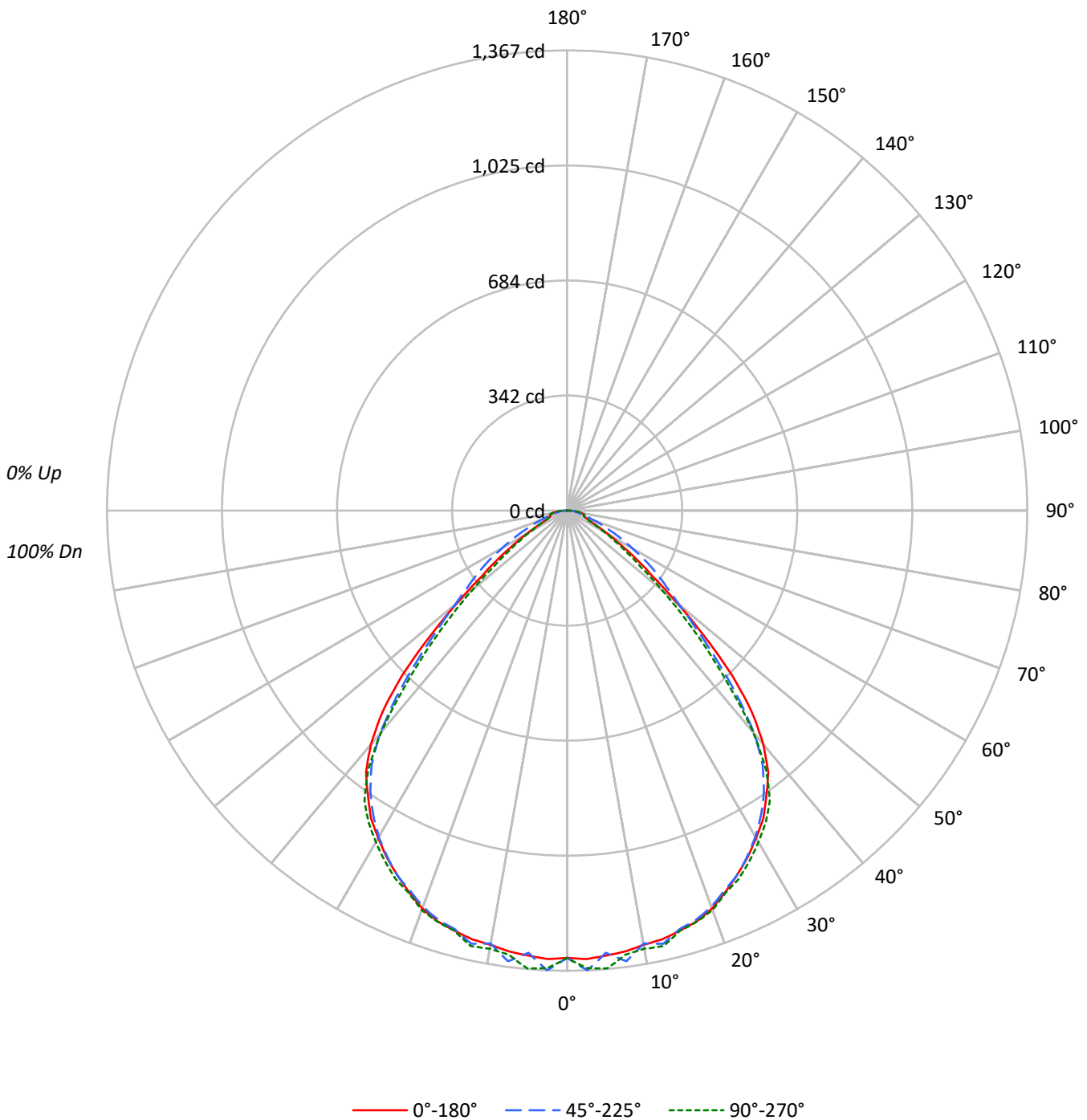
Input Watts (W): 20.367  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1788	1788	1788
5°	1792	1781	1844
10°	1789	1784	1806
15°	1800	1794	1801
20°	1801	1794	1809
25°	1773	1775	1792
30°	1744	1738	1766
35°	1695	1674	1724
40°	1591	1520	1512
45°	1319	1193	1132
50°	887	905	773
55°	585	760	507
60°	375	599	347
65°	242	457	235
70°	214	328	214
75°	276	260	278
80°	338	224	355
85°	394	333	414



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.3	4.7
10°-20°	365.4	13.6
20°-30°	550.1	20.5
30°-40°	637.6	23.7
40°-50°	498.1	18.5
50°-60°	266.0	9.9
60°-70°	136.8	5.1
70°-80°	77.4	2.9
80°-90°	29.4	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°	1042.8	38.8
0°-40°	1680.4	62.5
0°-60°	2444.5	90.9
0°-90°	2688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2688.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1327	1364	1318	1355	1365	126
15°	1292	1300	1288	1296	1293	365
25°	1194	1191	1195	1194	1207	550
35°	1032	1027	1019	1040	1050	643
45°	693	694	627	622	595	522
55°	250	316	324	292	216	230
65°	76	158	144	158	74	84
75°	53	100	50	93	54	54
85°	26	33	22	33	27	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1329.1	1329.1	1329.1	1329.1	1329.1
2.5°	1333.5	1357.6	1367.1	1355.5	1360.7
5°	1327.0	1364.1	1318.3	1354.6	1365.0
7.5°	1320.9	1317.1	1350.3	1315.8	1330.4
10°	1309.7	1312.3	1305.8	1330.4	1321.8
12.5°	1304.5	1319.6	1318.3	1305.8	1324.8
15°	1292.0	1300.2	1287.7	1295.9	1292.9
17.5°	1279.5	1275.6	1274.3	1277.8	1280.8
20°	1257.9	1245.0	1252.7	1253.6	1263.1
22.5°	1226.8	1219.1	1220.8	1228.6	1229.4
25°	1194.5	1190.6	1195.3	1193.6	1207.0
27.5°	1160.8	1155.6	1158.6	1165.1	1173.3
30°	1122.4	1121.1	1118.9	1124.5	1137.0
32.5°	1084.4	1074.0	1072.3	1083.9	1098.2
35°	1031.7	1027.0	1019.2	1039.5	1049.8
37.5°	981.6	967.0	954.4	966.5	970.8
40°	906.1	894.9	865.5	866.8	860.8
42.5°	813.3	805.1	749.0	739.0	722.2
45°	693.3	693.7	627.2	621.6	594.9
47.5°	553.8	578.4	520.6	514.1	474.4
50°	423.9	468.4	432.5	422.2	369.5
52.5°	318.1	383.3	372.1	349.7	277.1
55°	249.5	315.6	323.8	291.8	216.3
57.5°	187.8	259.9	273.3	246.9	167.1
60°	139.4	218.9	222.7	212.4	129.1
62.5°	103.6	186.1	180.9	182.2	95.8
65°	76.0	158.4	143.7	158.0	73.8
67.5°	62.2	137.3	111.8	136.8	60.0
70°	54.4	121.7	83.3	120.4	54.4
72.5°	52.7	111.8	66.0	107.1	53.1
75°	53.1	99.7	50.1	93.2	53.5
77.5°	48.8	82.0	38.0	79.4	50.9
80°	43.6	62.2	28.9	63.0	45.8
82.5°	37.1	45.3	23.3	46.6	38.4
85°	25.5	33.2	21.6	33.2	26.8
87.5°	12.1	19.9	13.4	19.0	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)