

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: P293965

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293965  
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-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: 2961.0 lumens  
Efficiency: N/A  
Efficacy: 146.0 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

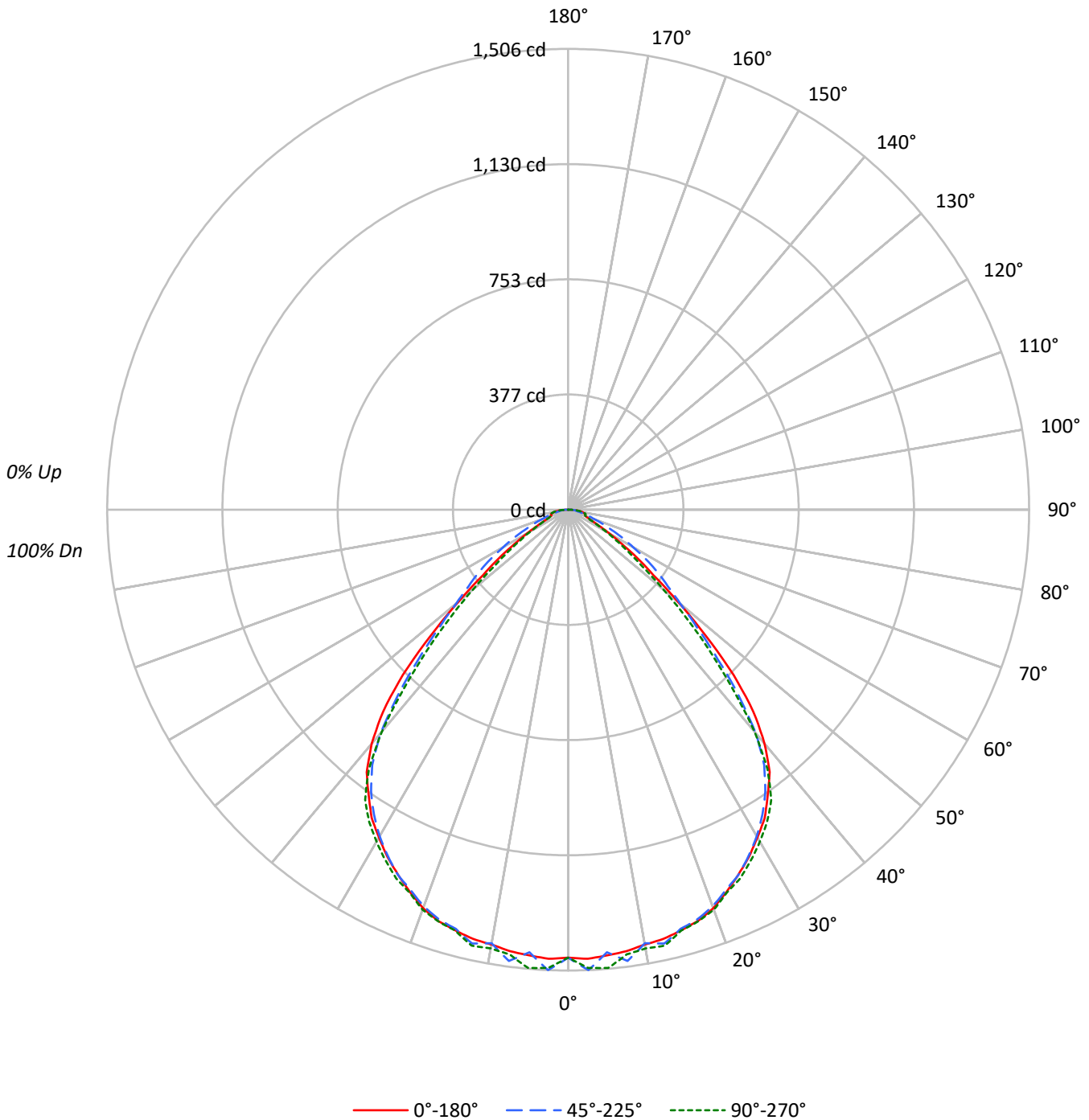
Input Watts (W): 20.274  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293965

CATALOG NUMBER: 24GR-LD5-30-A19/156-UNV-L82765-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P293965

CATALOG NUMBER: 24GR-LD5-30-A19/156-UNV-L82765-W2A1-U-4000K

**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°	1970	1970	1970
5°	1974	1961	2031
10°	1971	1965	1989
15°	1982	1976	1984
20°	1984	1976	1992
25°	1953	1955	1974
30°	1921	1915	1946
35°	1867	1844	1900
40°	1753	1675	1665
45°	1453	1315	1247
50°	978	997	852
55°	645	837	559
60°	413	660	383
65°	266	504	259
70°	236	361	236
75°	304	287	307
80°	372	247	391
85°	434	367	455



TEST NUMBER: P293965

CATALOG NUMBER: 24GR-LD5-30-A19/156-UNV-L82765-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.2	4.7
10°-20°	402.5	13.6
20°-30°	606.0	20.5
30°-40°	702.4	23.7
40°-50°	548.7	18.5
50°-60°	293.0	9.9
60°-70°	150.7	5.1
70°-80°	85.2	2.9
80°-90°	32.4	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°	1148.7	38.8
0°-40°	1851.1	62.5
0°-60°	2692.8	90.9
0°-90°	2961.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2961.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1462	1503	1452	1492	1504	139
15°	1423	1432	1418	1428	1424	402
25°	1316	1312	1317	1315	1330	606
35°	1136	1131	1123	1145	1156	709
45°	764	764	691	685	655	575
55°	275	348	357	322	238	254
65°	84	174	158	174	81	92
75°	58	110	55	103	59	59
85°	28	37	24	37	30	29
90°	0	0	0	0	0	



TEST NUMBER: P293965

CATALOG NUMBER: 24GR-LD5-30-A19/156-UNV-L82765-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1464.1	1464.1	1464.1	1464.1	1464.1
2.5°	1468.9	1495.5	1506.0	1493.1	1498.8
5°	1461.8	1502.6	1452.2	1492.2	1503.6
7.5°	1455.1	1450.8	1487.4	1449.4	1465.6
10°	1442.7	1445.6	1438.5	1465.6	1456.0
12.5°	1437.0	1453.7	1452.2	1438.5	1459.4
15°	1423.2	1432.3	1418.5	1427.5	1424.2
17.5°	1409.4	1405.2	1403.7	1407.5	1410.9
20°	1385.7	1371.4	1380.0	1380.9	1391.4
22.5°	1351.4	1342.9	1344.8	1353.3	1354.3
25°	1315.8	1311.5	1316.7	1314.8	1329.6
27.5°	1278.7	1273.0	1276.3	1283.4	1292.5
30°	1236.4	1234.9	1232.6	1238.7	1252.5
32.5°	1194.5	1183.1	1181.2	1194.0	1209.7
35°	1136.5	1131.3	1122.7	1145.1	1156.5
37.5°	1081.3	1065.2	1051.4	1064.7	1069.4
40°	998.1	985.8	953.4	954.8	948.2
42.5°	895.9	886.8	825.0	814.1	795.5
45°	763.7	764.2	690.9	684.8	655.3
47.5°	610.1	637.2	573.5	566.3	522.6
50°	467.0	515.9	476.5	465.1	407.0
52.5°	350.5	422.3	409.9	385.2	305.3
55°	274.9	347.6	356.6	321.5	238.2
57.5°	206.9	286.3	301.0	272.0	184.0
60°	153.6	241.1	245.4	234.0	142.2
62.5°	114.1	204.9	199.2	200.7	105.6
65°	83.7	174.5	158.3	174.0	81.3
67.5°	68.5	151.2	123.2	150.7	66.1
70°	59.9	134.1	91.8	132.7	59.9
72.5°	58.0	123.2	72.8	117.9	58.5
75°	58.5	109.8	55.2	102.7	59.0
77.5°	53.7	90.3	41.8	87.5	56.1
80°	48.0	68.5	31.9	69.4	50.4
82.5°	40.9	49.9	25.7	51.4	42.3
85°	28.1	36.6	23.8	36.6	29.5
87.5°	13.3	21.9	14.7	20.9	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)