

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: P294015

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294015  
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-LD5-56-A19/156-UNV-L82765-W2A1-U-6500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5733.0 lumens  
Efficiency: N/A  
Efficacy: 140.7 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

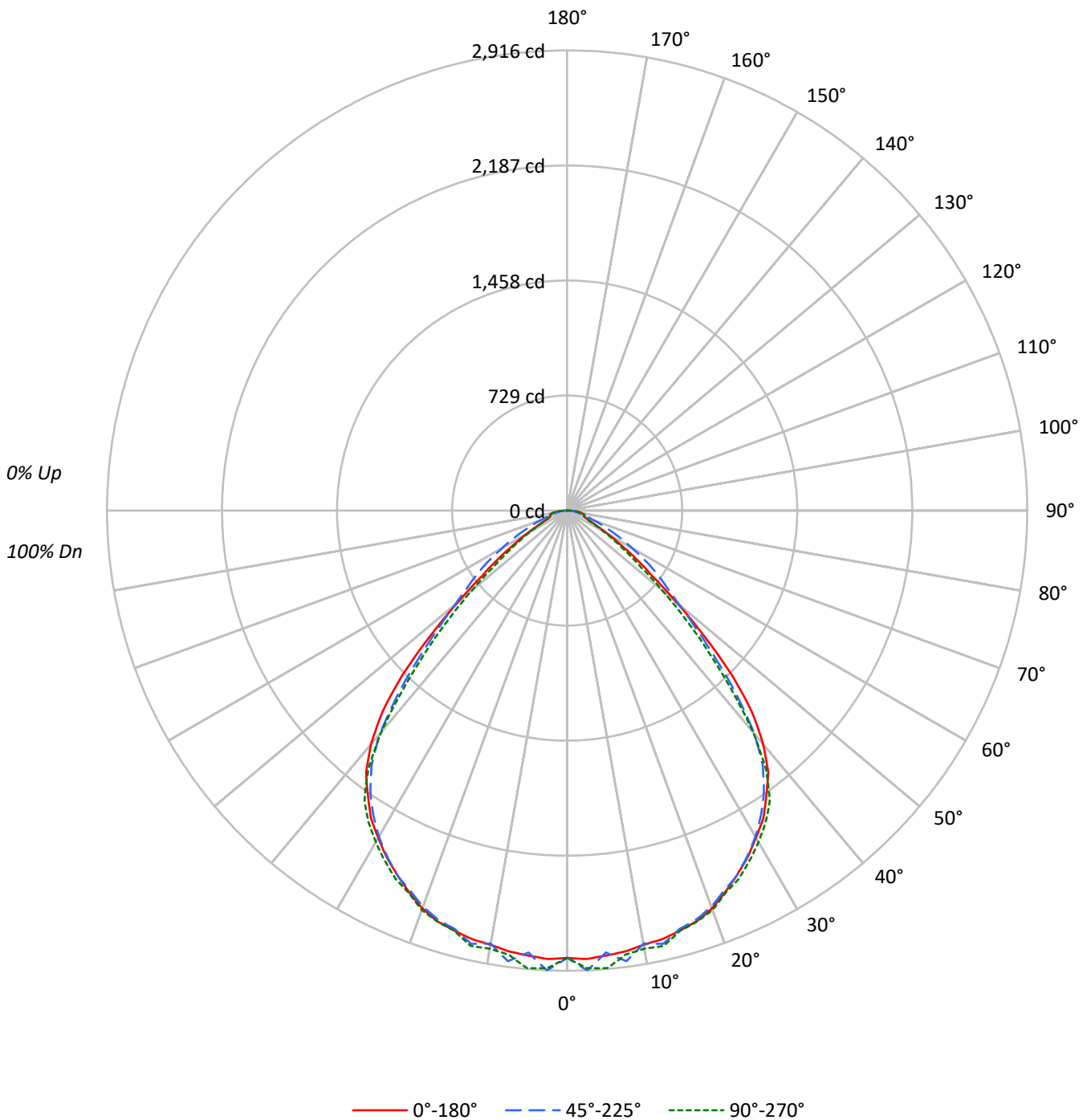
Input Watts (W): 40.734  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P294015

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L82765-W2A1-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P294015

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L82765-W2A1-U-6500K

**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°	3814	3814	3814
5°	3823	3798	3932
10°	3816	3805	3852
15°	3838	3826	3841
20°	3841	3826	3857
25°	3782	3785	3822
30°	3719	3708	3768
35°	3614	3570	3678
40°	3394	3242	3225
45°	2813	2546	2414
50°	1892	1931	1650
55°	1248	1620	1082
60°	800	1278	741
65°	516	976	501
70°	456	699	456
75°	588	555	594
80°	721	478	756
85°	838	710	881



TEST NUMBER: P294015

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L82765-W2A1-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.4	4.7
10°-20°	779.4	13.6
20°-30°	1173.3	20.5
30°-40°	1359.9	23.7
40°-50°	1062.3	18.5
50°-60°	567.3	9.9
60°-70°	291.7	5.1
70°-80°	165.0	2.9
80°-90°	62.7	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°	2224.1	38.8
0°-40°	3584.0	62.5
0°-60°	5213.6	90.9
0°-90°	5733.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5733.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2835	2835	2835	2835	2835	
5°	2830	2909	2812	2889	2911	269
15°	2756	2773	2746	2764	2758	778
25°	2548	2539	2549	2546	2574	1174
35°	2200	2190	2174	2217	2239	1372
45°	1479	1480	1338	1326	1269	1114
55°	532	673	690	622	461	491
65°	162	338	307	337	157	178
75°	113	213	107	199	114	115
85°	54	71	46	71	57	56
90°	0	0	0	0	0	



TEST NUMBER: P294015

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L82765-W2A1-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2834.8	2834.8	2834.8	2834.8	2834.8
2.5°	2844.0	2895.6	2915.8	2891.0	2902.0
5°	2830.2	2909.4	2811.8	2889.1	2911.2
7.5°	2817.3	2809.0	2879.9	2806.3	2837.6
10°	2793.4	2798.9	2785.1	2837.6	2819.2
12.5°	2782.3	2814.5	2811.8	2785.1	2825.6
15°	2755.6	2773.1	2746.4	2763.9	2757.5
17.5°	2728.9	2720.6	2717.9	2725.2	2731.7
20°	2682.9	2655.3	2671.8	2673.7	2693.9
22.5°	2616.6	2600.0	2603.7	2620.3	2622.1
25°	2547.5	2539.3	2549.4	2545.7	2574.2
27.5°	2475.7	2464.7	2471.1	2484.9	2502.4
30°	2393.8	2391.0	2386.4	2398.4	2425.1
32.5°	2312.8	2290.7	2287.0	2311.9	2342.2
35°	2200.4	2190.3	2173.7	2217.0	2239.1
37.5°	2093.6	2062.3	2035.6	2061.4	2070.6
40°	1932.5	1908.6	1846.0	1848.7	1835.9
42.5°	1734.6	1717.1	1597.4	1576.2	1540.3
45°	1478.6	1479.5	1337.8	1325.8	1268.7
47.5°	1181.2	1233.7	1110.4	1096.5	1011.8
50°	904.1	998.9	922.5	900.4	788.1
52.5°	678.5	817.6	793.6	745.8	591.1
55°	532.2	673.0	690.5	622.4	461.3
57.5°	400.5	554.3	582.8	526.6	356.3
60°	297.4	466.8	475.1	453.0	275.3
62.5°	221.0	396.8	385.8	388.5	204.4
65°	162.0	337.9	306.6	337.0	157.4
67.5°	132.6	292.8	238.5	291.9	128.0
70°	116.0	259.6	177.7	256.9	116.0
72.5°	112.3	238.5	140.9	228.3	113.2
75°	113.2	212.7	106.8	198.9	114.2
77.5°	104.0	174.9	81.0	169.4	108.6
80°	93.0	132.6	61.7	134.4	97.6
82.5°	79.2	96.7	49.7	99.4	81.9
85°	54.3	70.9	46.0	70.9	57.1
87.5°	25.8	42.4	28.5	40.5	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)