

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: P293952

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293952  
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-LD5-72-A19/156-UNV-L83050-W2A1-U-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6649.0 lumens  
Efficiency: N/A  
Efficacy: 126.8 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

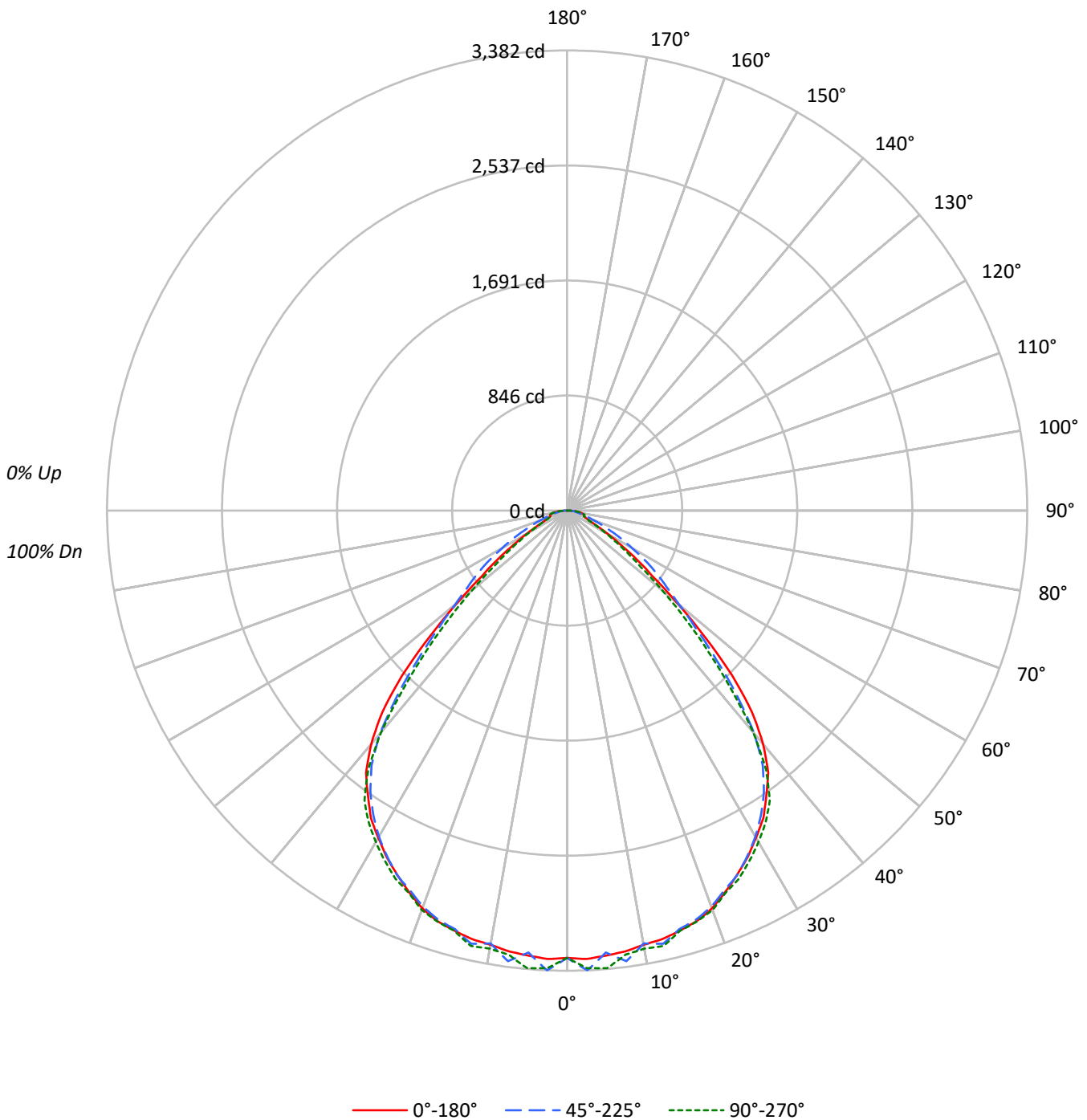
Input Watts (W): 52.452  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4424	4424	4424
5°	4433	4404	4560
10°	4426	4413	4467
15°	4452	4437	4455
20°	4455	4437	4474
25°	4386	4389	4432
30°	4313	4300	4370
35°	4192	4141	4266
40°	3937	3760	3740
45°	3263	2952	2800
50°	2195	2240	1913
55°	1448	1879	1255
60°	928	1483	859
65°	598	1132	581
70°	529	811	529
75°	683	644	688
80°	835	554	877
85°	973	824	1022



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	314.8	4.7
10°-20°	903.9	13.6
20°-30°	1360.8	20.5
30°-40°	1577.2	23.7
40°-50°	1232.1	18.5
50°-60°	657.9	9.9
60°-70°	338.3	5.1
70°-80°	191.4	2.9
80°-90°	72.7	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°	2579.4	38.8
0°-40°	4156.7	62.5
0°-60°	6046.6	90.9
0°-90°	6649.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6649.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3288	3288	3288	3288	3288	
5°	3282	3374	3261	3351	3376	312
15°	3196	3216	3185	3206	3198	903
25°	2955	2945	2957	2952	2986	1361
35°	2552	2540	2521	2571	2597	1591
45°	1715	1716	1552	1538	1471	1292
55°	617	781	801	722	535	570
65°	188	392	356	391	183	207
75°	131	247	124	231	132	133
85°	63	82	53	82	66	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3287.7	3287.7	3287.7	3287.7	3287.7
2.5°	3298.4	3358.2	3381.7	3352.9	3365.7
5°	3282.4	3374.2	3261.0	3350.7	3376.4
7.5°	3267.5	3257.8	3340.1	3254.6	3290.9
10°	3239.7	3246.1	3230.1	3290.9	3269.6
12.5°	3226.9	3264.2	3261.0	3230.1	3277.1
15°	3195.9	3216.2	3185.2	3205.5	3198.0
17.5°	3164.9	3155.3	3152.1	3160.7	3168.1
20°	3111.6	3079.5	3098.7	3100.9	3124.4
22.5°	3034.7	3015.5	3019.7	3038.9	3041.1
25°	2954.6	2945.0	2956.7	2952.5	2985.6
27.5°	2871.3	2858.5	2866.0	2882.0	2902.3
30°	2776.3	2773.1	2767.7	2781.6	2812.6
32.5°	2682.3	2656.7	2652.4	2681.2	2716.5
35°	2552.0	2540.3	2521.1	2571.2	2596.9
37.5°	2428.2	2391.9	2360.9	2390.8	2401.5
40°	2241.3	2213.5	2140.9	2144.1	2129.2
42.5°	2011.7	1991.4	1852.6	1828.1	1786.4
45°	1714.9	1715.9	1551.5	1537.6	1471.4
47.5°	1370.0	1430.8	1287.8	1271.7	1173.5
50°	1048.6	1158.6	1069.9	1044.3	914.0
52.5°	787.0	948.2	920.4	864.9	685.5
55°	617.2	780.6	800.8	721.8	535.0
57.5°	464.5	642.8	675.9	610.8	413.2
60°	344.9	541.4	551.0	525.4	319.3
62.5°	256.3	460.2	447.4	450.6	237.1
65°	187.9	391.9	355.6	390.8	182.6
67.5°	153.8	339.6	276.6	338.5	148.4
70°	134.5	301.1	206.1	297.9	134.5
72.5°	130.3	276.6	163.4	264.8	131.3
75°	131.3	246.7	123.9	230.6	132.4
77.5°	120.7	202.9	94.0	196.5	126.0
80°	107.8	153.8	71.5	155.9	113.2
82.5°	91.8	112.1	57.7	115.3	95.0
85°	63.0	82.2	53.4	82.2	66.2
87.5°	29.9	49.1	33.1	47.0	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)