

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: P293949

Luminaire Tested: **24GR-LD5-64-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293949  
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-LD5-64-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: 6539.0 lumens  
Efficiency: N/A  
Efficacy: 139.2 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

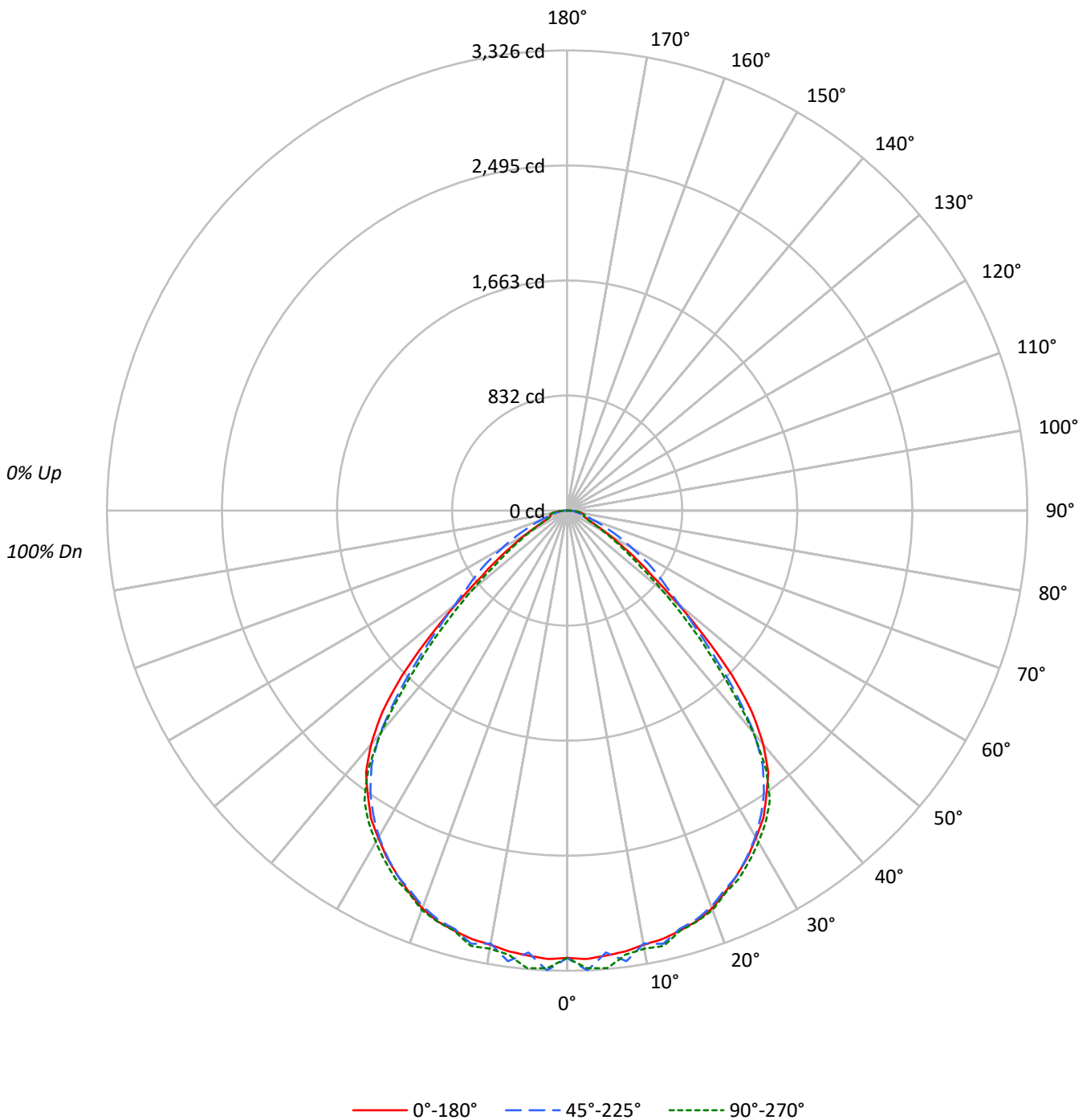
Input Watts (W): 46.965  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4350	4350	4350
5°	4360	4332	4485
10°	4353	4340	4393
15°	4378	4363	4381
20°	4382	4364	4400
25°	4314	4317	4359
30°	4242	4229	4297
35°	4122	4073	4195
40°	3871	3698	3678
45°	3209	2903	2754
50°	2159	2202	1882
55°	1424	1848	1234
60°	913	1458	845
65°	588	1113	572
70°	520	797	520
75°	672	633	677
80°	822	545	862
85°	957	810	1005



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	309.6	4.7
10°-20°	888.9	13.6
20°-30°	1338.3	20.5
30°-40°	1551.1	23.7
40°-50°	1211.7	18.5
50°-60°	647.0	9.9
60°-70°	332.7	5.1
70°-80°	188.2	2.9
80°-90°	71.5	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°	2536.8	38.8
0°-40°	4087.9	62.5
0°-60°	5946.6	90.9
0°-90°	6539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6539.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3233	3233	3233	3233	3233	
5°	3228	3318	3207	3295	3320	307
15°	3143	3163	3132	3152	3145	888
25°	2906	2896	2908	2904	2936	1339
35°	2510	2498	2479	2529	2554	1565
45°	1686	1688	1526	1512	1447	1271
55°	607	768	788	710	526	560
65°	185	385	350	384	180	203
75°	129	243	122	227	130	131
85°	62	81	52	81	65	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3233.3	3233.3	3233.3	3233.3	3233.3
2.5°	3243.8	3302.7	3325.8	3297.4	3310.0
5°	3228.1	3318.4	3207.1	3295.3	3320.5
7.5°	3213.4	3203.9	3284.8	3200.8	3236.5
10°	3186.1	3192.4	3176.6	3236.5	3215.5
12.5°	3173.5	3210.2	3207.1	3176.6	3222.8
15°	3143.0	3163.0	3132.5	3152.5	3145.1
17.5°	3112.6	3103.1	3100.0	3108.4	3115.7
20°	3060.1	3028.6	3047.5	3049.6	3072.7
22.5°	2984.5	2965.6	2969.8	2988.7	2990.8
25°	2905.7	2896.3	2907.8	2903.6	2936.2
27.5°	2823.8	2811.2	2818.5	2834.3	2854.3
30°	2730.3	2727.2	2721.9	2735.6	2766.0
32.5°	2637.9	2612.7	2608.5	2636.9	2671.5
35°	2509.8	2498.3	2479.4	2528.7	2553.9
37.5°	2388.0	2352.3	2321.8	2351.2	2361.7
40°	2204.2	2176.9	2105.5	2108.7	2094.0
42.5°	1978.4	1958.5	1822.0	1797.8	1756.9
45°	1686.5	1687.6	1525.8	1512.2	1447.1
47.5°	1347.3	1407.2	1266.5	1250.7	1154.1
50°	1031.2	1139.4	1052.2	1027.0	898.9
52.5°	773.9	932.5	905.2	850.6	674.2
55°	607.0	767.6	787.6	709.9	526.1
57.5°	456.8	632.2	664.7	600.7	406.4
60°	339.2	532.4	541.9	516.7	314.0
62.5°	252.0	452.6	440.0	443.2	233.1
65°	184.8	385.4	349.7	384.3	179.6
67.5°	151.2	333.9	272.0	332.9	146.0
70°	132.3	296.1	202.7	293.0	132.3
72.5°	128.1	272.0	160.7	260.4	129.2
75°	129.2	242.6	121.8	226.8	130.2
77.5°	118.7	199.5	92.4	193.2	123.9
80°	106.1	151.2	70.4	153.3	111.3
82.5°	90.3	110.3	56.7	113.4	93.5
85°	62.0	80.9	52.5	80.9	65.1
87.5°	29.4	48.3	32.6	46.2	33.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)