

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: P293959

Luminaire Tested: **24GR-LD5-85-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293959  
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-LD5-85-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: 8470.0 lumens  
Efficiency: N/A  
Efficacy: 132.8 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

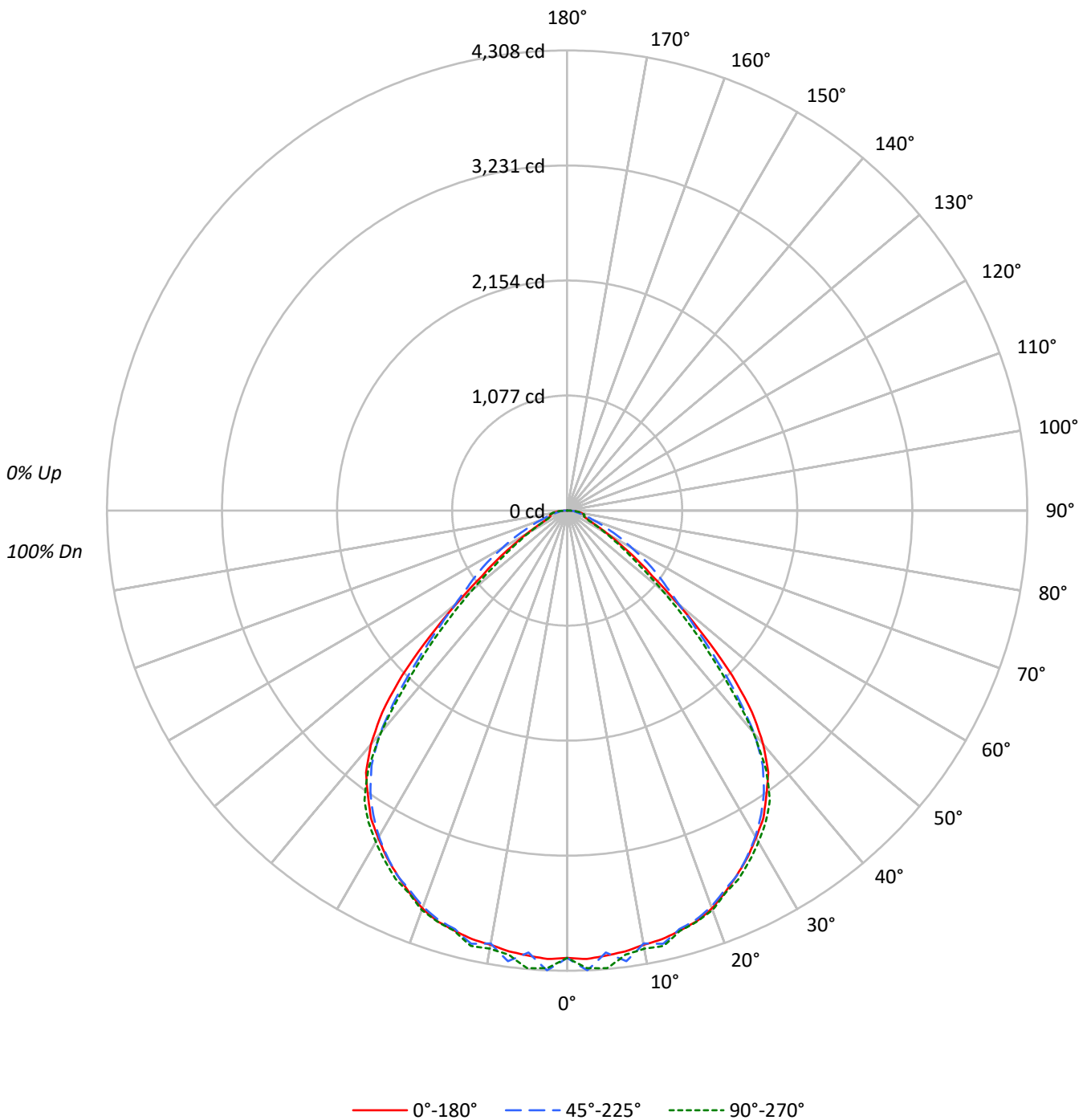
Input Watts (W): 63.798  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5635	5635	5635
5°	5648	5611	5809
10°	5638	5622	5690
15°	5671	5652	5675
20°	5675	5652	5699
25°	5588	5592	5646
30°	5495	5478	5567
35°	5340	5275	5434
40°	5015	4790	4764
45°	4157	3761	3567
50°	2796	2853	2437
55°	1844	2393	1599
60°	1182	1889	1094
65°	762	1442	741
70°	674	1033	674
75°	870	820	877
80°	1065	706	1117
85°	1240	1050	1301



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.0	4.7
10°-20°	1151.4	13.6
20°-30°	1733.5	20.5
30°-40°	2009.2	23.7
40°-50°	1569.5	18.5
50°-60°	838.1	9.9
60°-70°	431.0	5.1
70°-80°	243.8	2.9
80°-90°	92.6	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°	3285.9	38.8
0°-40°	5295.1	62.5
0°-60°	7702.7	90.9
0°-90°	8470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8470.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4188	4188	4188	4188	4188	
5°	4181	4298	4154	4268	4301	398
15°	4071	4097	4058	4083	4074	1150
25°	3764	3752	3766	3761	3803	1734
35°	3251	3236	3212	3276	3308	2027
45°	2184	2186	1976	1959	1874	1646
55°	786	994	1020	920	682	726
65°	239	499	453	498	233	263
75°	167	314	158	294	169	169
85°	80	105	68	105	84	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4188.2	4188.2	4188.2	4188.2	4188.2
2.5°	4201.8	4277.9	4307.9	4271.1	4287.5
5°	4181.4	4298.4	4154.2	4268.4	4301.1
7.5°	4162.3	4150.1	4254.8	4146.0	4192.3
10°	4127.0	4135.1	4114.7	4192.3	4165.0
12.5°	4110.6	4158.2	4154.2	4114.7	4174.6
15°	4071.2	4097.0	4057.6	4083.4	4073.9
17.5°	4031.7	4019.5	4015.4	4026.3	4035.8
20°	3963.7	3922.9	3947.4	3950.1	3980.1
22.5°	3865.8	3841.3	3846.8	3871.2	3874.0
25°	3763.8	3751.5	3766.5	3761.1	3803.2
27.5°	3657.7	3641.4	3650.9	3671.3	3697.1
30°	3536.6	3532.5	3525.7	3543.4	3582.9
32.5°	3416.9	3384.3	3378.8	3415.6	3460.4
35°	3251.0	3236.0	3211.5	3275.5	3308.1
37.5°	3093.2	3046.9	3007.5	3045.6	3059.2
40°	2855.1	2819.8	2727.3	2731.4	2712.3
42.5°	2562.7	2536.8	2360.0	2328.7	2275.7
45°	2184.5	2185.9	1976.4	1958.7	1874.4
47.5°	1745.2	1822.7	1640.4	1620.0	1494.9
50°	1335.8	1475.9	1363.0	1330.3	1164.4
52.5°	1002.5	1207.9	1172.5	1101.8	873.3
55°	786.2	994.3	1020.2	919.5	681.5
57.5°	591.7	818.9	861.0	778.1	526.4
60°	439.4	689.6	701.9	669.2	406.7
62.5°	326.5	586.3	569.9	574.0	302.0
65°	239.4	499.2	453.0	497.8	232.6
67.5°	195.9	432.6	352.3	431.2	189.1
70°	171.4	383.6	262.5	379.5	171.4
72.5°	165.9	352.3	208.1	337.3	167.3
75°	167.3	314.2	157.8	293.8	168.7
77.5°	153.7	258.4	119.7	250.3	160.5
80°	137.4	195.9	91.1	198.6	144.2
82.5°	117.0	142.8	73.5	146.9	121.1
85°	80.3	104.7	68.0	104.7	84.3
87.5°	38.1	62.6	42.2	59.9	43.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)