

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: P292623

Luminaire Tested: **22GR-LD5-24-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292623  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-24-A19/156-UNV-L93050-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2244.0 lumens  
Efficiency: N/A  
Efficacy: 118.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

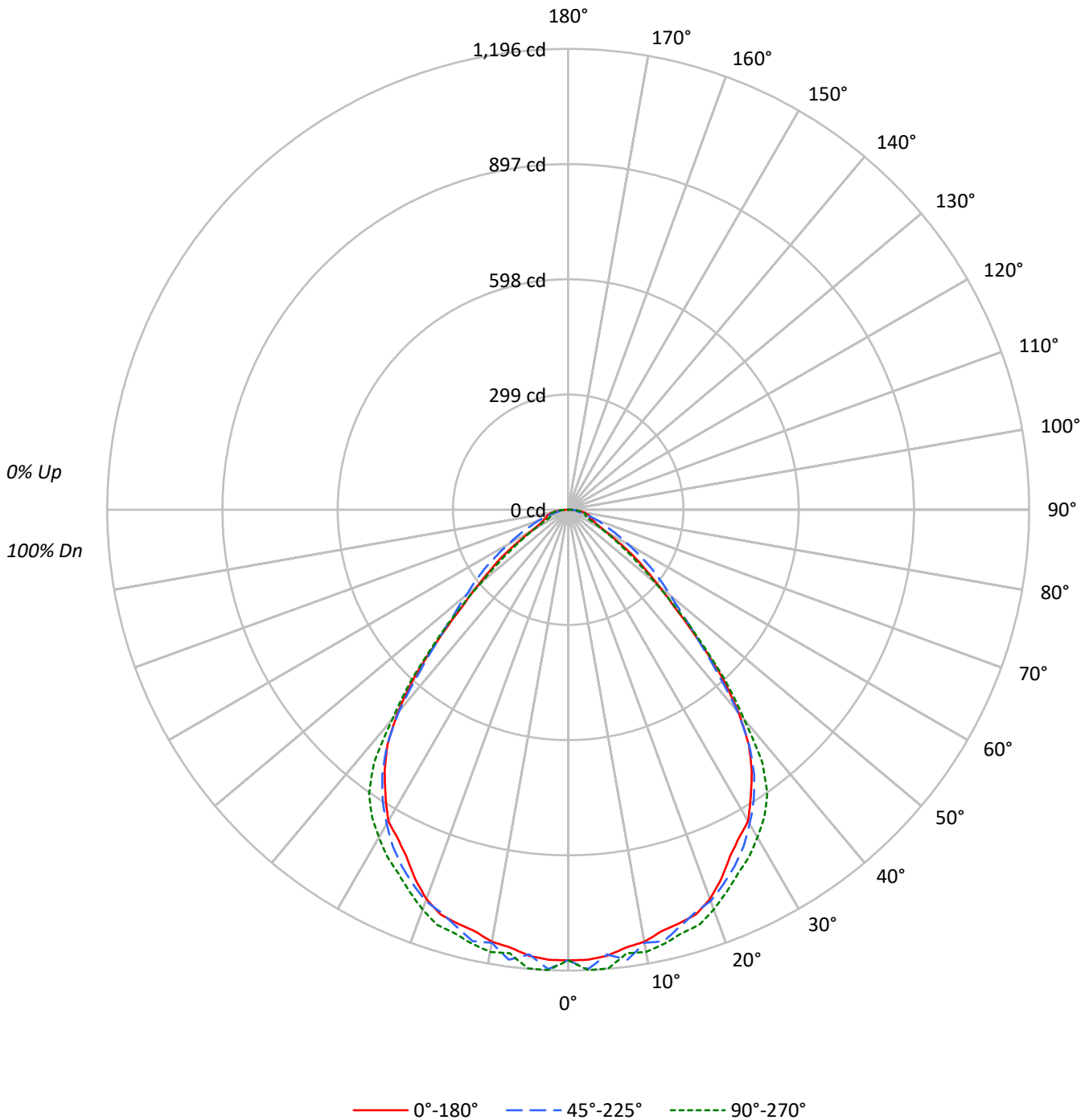
Input Watts (W): 18.879  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3147	3147	3147
5°	3139	3129	3228
10°	3110	3119	3184
15°	3096	3120	3170
20°	3080	3095	3162
25°	2948	3031	3094
30°	2900	2926	3051
35°	2727	2762	2958
40°	2416	2400	2494
45°	1805	1809	1859
50°	1271	1445	1231
55°	938	1220	841
60°	586	964	549
65°	478	764	384
70°	474	637	378
75°	588	467	490
80°	656	369	598
85°	651	685	670



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.3	5.0
10°-20°	317.1	14.1
20°-30°	469.7	20.9
30°-40°	526.1	23.4
40°-50°	386.6	17.2
50°-60°	216.1	9.6
60°-70°	120.4	5.4
70°-80°	70.8	3.2
80°-90°	26.0	1.2
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°	898.1	40.0
0°-40°	1424.2	63.5
0°-60°	2026.8	90.3
0°-90°	2244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2244.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1162	1184	1158	1182	1195	110
15°	1111	1118	1120	1137	1138	314
25°	993	1001	1021	1035	1042	460
35°	830	831	841	879	900	514
45°	474	513	475	509	488	371
55°	200	243	260	260	179	178
65°	75	133	120	154	60	78
75°	57	80	45	90	47	57
85°	21	31	22	29	22	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1169.5	1169.5	1169.5	1169.5	1169.5
2.5°	1169.0	1179.6	1193.3	1194.9	1195.9
5°	1162.1	1183.8	1158.4	1182.2	1194.9
7.5°	1146.2	1159.5	1178.0	1154.2	1161.1
10°	1138.3	1141.5	1141.5	1171.1	1165.3
12.5°	1120.3	1141.5	1146.8	1141.0	1153.6
15°	1111.4	1118.2	1119.8	1136.7	1137.8
17.5°	1101.3	1099.7	1096.0	1108.2	1129.9
20°	1075.4	1069.6	1080.7	1095.5	1104.0
22.5°	1037.3	1038.9	1052.1	1064.3	1073.8
25°	992.9	1000.9	1020.9	1035.2	1042.1
27.5°	959.6	971.2	985.0	1001.9	1015.7
30°	933.2	932.1	941.6	966.0	981.8
32.5°	881.9	885.6	895.6	924.7	946.9
35°	830.1	830.6	840.7	878.7	900.4
37.5°	770.3	766.1	771.9	813.2	827.4
40°	687.9	688.9	683.1	712.2	710.1
42.5°	591.6	600.1	570.0	608.0	605.4
45°	474.3	512.9	475.3	509.1	488.5
47.5°	374.3	431.4	400.2	425.1	386.5
50°	303.5	362.2	345.2	356.4	294.0
52.5°	249.0	296.6	301.9	304.5	229.5
55°	199.9	243.2	260.1	259.6	179.2
57.5°	147.5	197.7	217.3	225.2	135.9
60°	108.9	164.4	179.2	196.7	102.0
62.5°	87.8	144.3	148.0	172.4	77.7
65°	75.1	133.2	120.0	153.9	60.3
67.5°	66.6	124.2	97.8	137.5	51.3
70°	60.3	110.5	80.9	123.2	48.1
72.5°	58.7	94.1	62.4	110.0	47.6
75°	56.6	79.8	44.9	90.4	47.1
77.5°	48.6	68.2	32.3	69.8	43.9
80°	42.3	54.5	23.8	52.3	38.6
82.5°	32.8	41.2	21.1	39.7	31.2
85°	21.1	31.2	22.2	28.6	21.7
87.5°	10.0	17.4	15.9	15.3	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)