

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: P294043

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294043  
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-LD5-30-A19/156-UNV-L93050-W2A1-U-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2308.0 lumens  
Efficiency: N/A  
Efficacy: 112.8 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

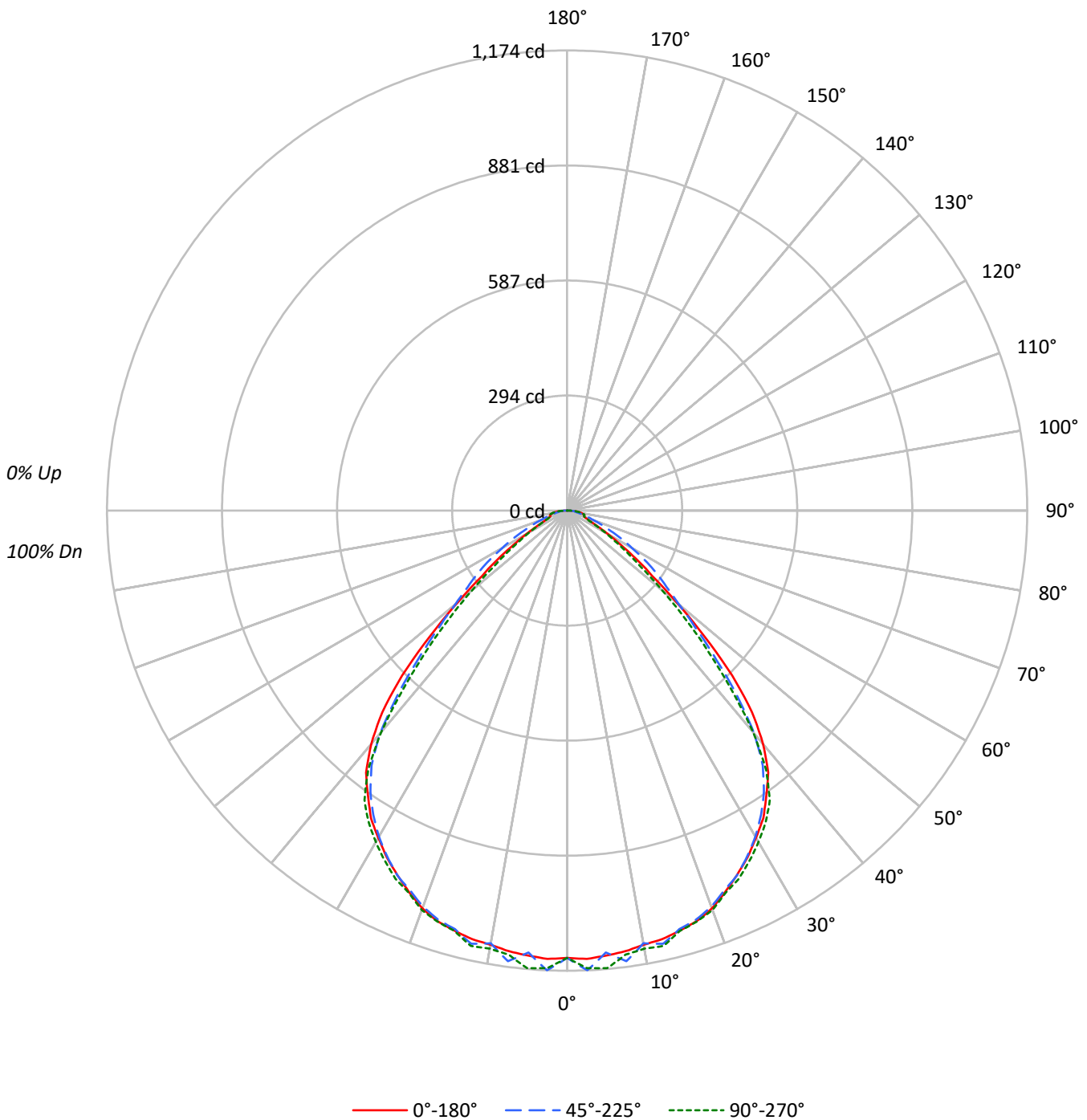
Input Watts (W): 20.454885  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33

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

	0°	45°	90°
0°	1535	1535	1535
5°	1539	1529	1583
10°	1536	1532	1551
15°	1545	1540	1546
20°	1547	1540	1553
25°	1523	1524	1538
30°	1497	1493	1517
35°	1455	1437	1481
40°	1366	1305	1298
45°	1133	1025	972
50°	762	777	664
55°	502	652	436
60°	322	515	298
65°	208	393	202
70°	184	281	184
75°	237	224	239
80°	290	192	305
85°	338	286	355



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.3	4.7
10°-20°	313.8	13.6
20°-30°	472.4	20.5
30°-40°	547.5	23.7
40°-50°	427.7	18.5
50°-60°	228.4	9.9
60°-70°	117.4	5.1
70°-80°	66.4	2.9
80°-90°	25.2	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°	895.4	38.8
0°-40°	1442.9	62.5
0°-60°	2098.9	90.9
0°-90°	2308.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2308.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1141	1141	1141	1141	1141	
5°	1139	1171	1132	1163	1172	108
15°	1109	1116	1106	1113	1110	313
25°	1026	1022	1026	1025	1036	473
35°	886	882	875	892	901	552
45°	595	596	539	534	511	449
55°	214	271	278	251	186	198
65°	65	136	123	136	63	72
75°	46	86	43	80	46	46
85°	22	28	18	28	23	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1141.2	1141.2	1141.2	1141.2	1141.2
2.5°	1144.9	1165.7	1173.9	1163.8	1168.3
5°	1139.4	1171.3	1132.0	1163.1	1172.0
7.5°	1134.2	1130.9	1159.4	1129.7	1142.4
10°	1124.6	1126.8	1121.2	1142.4	1134.9
12.5°	1120.1	1133.1	1132.0	1121.2	1137.5
15°	1109.4	1116.4	1105.7	1112.7	1110.1
17.5°	1098.6	1095.3	1094.2	1097.1	1099.7
20°	1080.1	1069.0	1075.6	1076.4	1084.5
22.5°	1053.4	1046.7	1048.2	1054.9	1055.6
25°	1025.6	1022.3	1026.3	1024.9	1036.3
27.5°	996.7	992.2	994.8	1000.4	1007.4
30°	963.7	962.6	960.7	965.6	976.3
32.5°	931.1	922.2	920.7	930.7	942.9
35°	885.9	881.8	875.1	892.5	901.4
37.5°	842.9	830.3	819.5	829.9	833.6
40°	778.0	768.4	743.2	744.3	739.1
42.5°	698.3	691.3	643.1	634.6	620.1
45°	595.3	595.6	538.6	533.7	510.8
47.5°	475.5	496.7	447.0	441.4	407.3
50°	364.0	402.2	371.4	362.5	317.3
52.5°	273.2	329.1	319.5	300.2	238.0
55°	214.2	270.9	278.0	250.6	185.7
57.5°	161.2	223.1	234.6	212.0	143.4
60°	119.7	187.9	191.3	182.4	110.8
62.5°	89.0	159.8	155.3	156.4	82.3
65°	65.2	136.0	123.4	135.7	63.4
67.5°	53.4	117.9	96.0	117.5	51.5
70°	46.7	104.5	71.5	103.4	46.7
72.5°	45.2	96.0	56.7	91.9	45.6
75°	45.6	85.6	43.0	80.1	46.0
77.5°	41.9	70.4	32.6	68.2	43.7
80°	37.4	53.4	24.8	54.1	39.3
82.5°	31.9	38.9	20.0	40.0	33.0
85°	21.9	28.5	18.5	28.5	23.0
87.5°	10.4	17.1	11.5	16.3	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)