

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: P294089

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294089  
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-L92765-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: 2417.0 lumens  
Efficiency: N/A  
Efficacy: 122.0 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

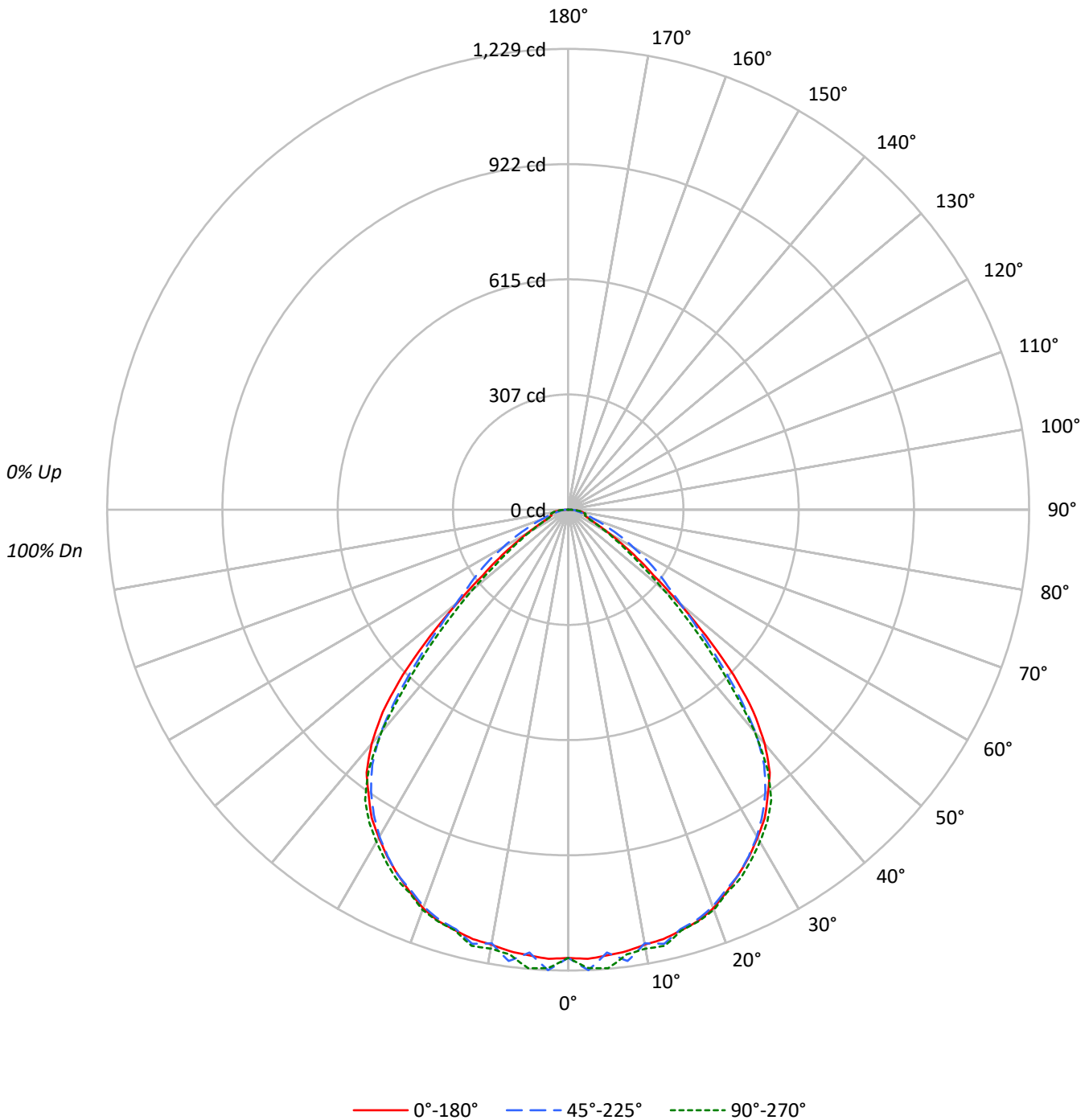
Input Watts (W): 19.809  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1608	1608	1608
5°	1612	1601	1658
10°	1609	1604	1624
15°	1618	1613	1619
20°	1620	1613	1626
25°	1594	1596	1611
30°	1568	1563	1588
35°	1524	1505	1551
40°	1431	1367	1359
45°	1186	1073	1018
50°	798	814	696
55°	526	683	456
60°	337	539	312
65°	217	412	211
70°	192	295	192
75°	248	234	250
80°	304	201	318
85°	354	299	372



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.4	4.7
10°-20°	328.6	13.6
20°-30°	494.7	20.5
30°-40°	573.3	23.7
40°-50°	447.9	18.5
50°-60°	239.2	9.9
60°-70°	123.0	5.1
70°-80°	69.6	2.9
80°-90°	26.4	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°	937.7	38.8
0°-40°	1511.0	62.5
0°-60°	2198.0	90.9
0°-90°	2417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2417.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1195	1195	1195	1195	1195	
5°	1193	1227	1185	1218	1227	113
15°	1162	1169	1158	1165	1162	328
25°	1074	1070	1075	1073	1085	495
35°	928	923	916	935	944	578
45°	623	624	564	559	535	470
55°	224	284	291	262	194	207
65°	68	142	129	142	66	75
75°	48	90	45	84	48	48
85°	23	30	19	30	24	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1195.1	1195.1	1195.1	1195.1	1195.1
2.5°	1199.0	1220.8	1229.3	1218.8	1223.5
5°	1193.2	1226.6	1185.4	1218.0	1227.4
7.5°	1187.8	1184.3	1214.2	1183.1	1196.3
10°	1177.7	1180.0	1174.2	1196.3	1188.5
12.5°	1173.0	1186.6	1185.4	1174.2	1191.3
15°	1161.8	1169.1	1157.9	1165.2	1162.5
17.5°	1150.5	1147.0	1145.8	1148.9	1151.7
20°	1131.1	1119.4	1126.4	1127.2	1135.7
22.5°	1103.1	1096.2	1097.7	1104.7	1105.5
25°	1074.0	1070.5	1074.8	1073.3	1085.3
27.5°	1043.8	1039.1	1041.8	1047.6	1055.0
30°	1009.2	1008.0	1006.1	1011.2	1022.4
32.5°	975.1	965.7	964.2	974.7	987.5
35°	927.7	923.4	916.4	934.7	944.0
37.5°	882.7	869.5	858.2	869.1	873.0
40°	814.7	804.7	778.3	779.4	774.0
42.5°	731.3	723.9	673.5	664.5	649.4
45°	623.4	623.8	564.0	558.9	534.9
47.5°	498.0	520.1	468.1	462.3	426.6
50°	381.2	421.2	388.9	379.6	332.3
52.5°	286.1	344.7	334.6	314.4	249.2
55°	224.4	283.7	291.1	262.4	194.5
57.5°	168.8	233.7	245.7	222.0	150.2
60°	125.4	196.8	200.3	191.0	116.1
62.5°	93.2	167.3	162.6	163.8	86.2
65°	68.3	142.5	129.3	142.1	66.4
67.5°	55.9	123.4	100.5	123.0	54.0
70°	48.9	109.5	74.9	108.3	48.9
72.5°	47.4	100.5	59.4	96.3	47.7
75°	47.7	89.7	45.0	83.8	48.1
77.5°	43.9	73.7	34.2	71.4	45.8
80°	39.2	55.9	26.0	56.7	41.1
82.5°	33.4	40.8	21.0	41.9	34.5
85°	22.9	29.9	19.4	29.9	24.1
87.5°	10.9	17.9	12.0	17.1	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)