

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: P293964

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293964  
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-L82765-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2897.0 lumens  
Efficiency: N/A  
Efficacy: 144.2 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

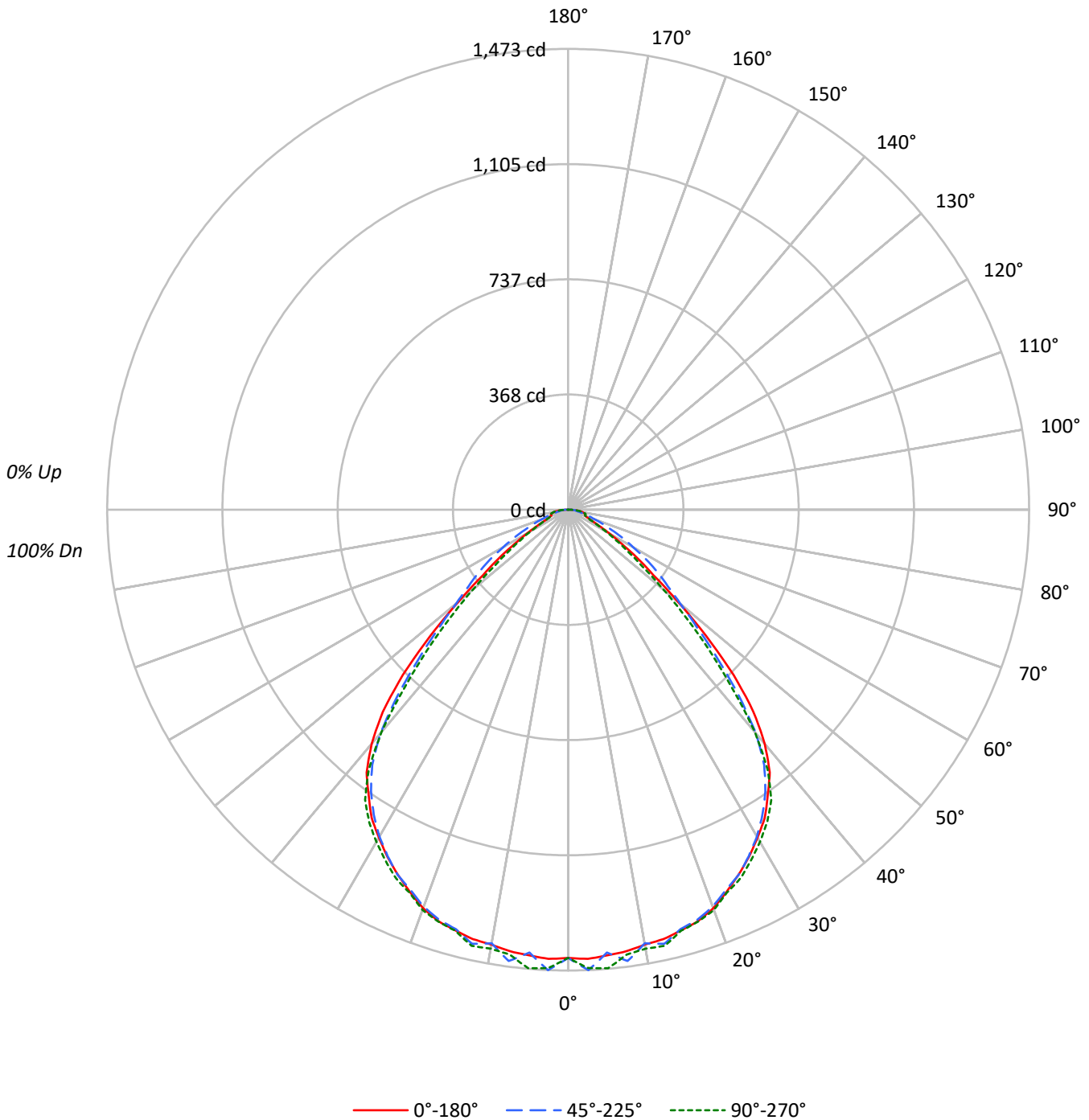
Input Watts (W): 20.088  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1927	1927	1927
5°	1932	1919	1987
10°	1928	1923	1946
15°	1940	1933	1941
20°	1941	1933	1949
25°	1911	1913	1931
30°	1879	1874	1904
35°	1826	1804	1859
40°	1715	1638	1629
45°	1422	1286	1220
50°	956	976	834
55°	631	818	547
60°	404	646	374
65°	261	493	253
70°	231	353	231
75°	297	281	300
80°	364	242	382
85°	423	360	445



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.2	4.7
10°-20°	393.8	13.6
20°-30°	592.9	20.5
30°-40°	687.2	23.7
40°-50°	536.8	18.5
50°-60°	286.6	9.9
60°-70°	147.4	5.1
70°-80°	83.4	2.9
80°-90°	31.7	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°	1123.9	38.8
0°-40°	1811.1	62.5
0°-60°	2634.5	90.9
0°-90°	2897.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2897.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1430	1470	1421	1460	1471	136
15°	1392	1401	1388	1397	1393	393
25°	1287	1283	1288	1286	1301	593
35°	1112	1107	1098	1120	1132	693
45°	747	748	676	670	641	563
55°	269	340	349	314	233	248
65°	82	171	155	170	80	90
75°	57	108	54	100	58	58
85°	27	36	23	36	29	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1432.5	1432.5	1432.5	1432.5	1432.5
2.5°	1437.1	1463.2	1473.4	1460.9	1466.4
5°	1430.2	1470.2	1420.9	1459.9	1471.1
7.5°	1423.6	1419.5	1455.3	1418.1	1433.9
10°	1411.5	1414.3	1407.4	1433.9	1424.6
12.5°	1406.0	1422.2	1420.9	1407.4	1427.8
15°	1392.5	1401.3	1387.8	1396.7	1393.4
17.5°	1379.0	1374.8	1373.4	1377.1	1380.4
20°	1355.7	1341.8	1350.1	1351.1	1361.3
22.5°	1322.2	1313.8	1315.7	1324.1	1325.0
25°	1287.3	1283.1	1288.3	1286.4	1300.8
27.5°	1251.0	1245.5	1248.7	1255.7	1264.5
30°	1209.6	1208.2	1205.9	1212.0	1225.5
32.5°	1168.7	1157.5	1155.7	1168.2	1183.6
35°	1111.9	1106.8	1098.4	1120.3	1131.5
37.5°	1058.0	1042.1	1028.7	1041.7	1046.3
40°	976.5	964.4	932.8	934.2	927.7
42.5°	876.5	867.7	807.2	796.5	778.4
45°	747.2	747.6	676.0	670.0	641.1
47.5°	596.9	623.4	561.1	554.1	511.3
50°	456.9	504.8	466.2	455.0	398.2
52.5°	342.9	413.1	401.0	376.8	298.7
55°	268.9	340.1	348.9	314.5	233.1
57.5°	202.4	280.1	294.5	266.1	180.0
60°	150.3	235.9	240.1	228.9	139.1
62.5°	111.7	200.5	194.9	196.3	103.3
65°	81.9	170.7	154.9	170.3	79.6
67.5°	67.0	147.9	120.5	147.5	64.7
70°	58.6	131.2	89.8	129.8	58.6
72.5°	56.8	120.5	71.2	115.4	57.2
75°	57.2	107.5	54.0	100.5	57.7
77.5°	52.6	88.4	40.9	85.6	54.9
80°	47.0	67.0	31.2	67.9	49.3
82.5°	40.0	48.9	25.1	50.2	41.4
85°	27.4	35.8	23.3	35.8	28.8
87.5°	13.0	21.4	14.4	20.5	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)