

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: P292538

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292538  
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-LD5-36-A19/156-UNV-L83050-W2A1-U-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3563.0 lumens  
Efficiency: N/A  
Efficacy: 126.9 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

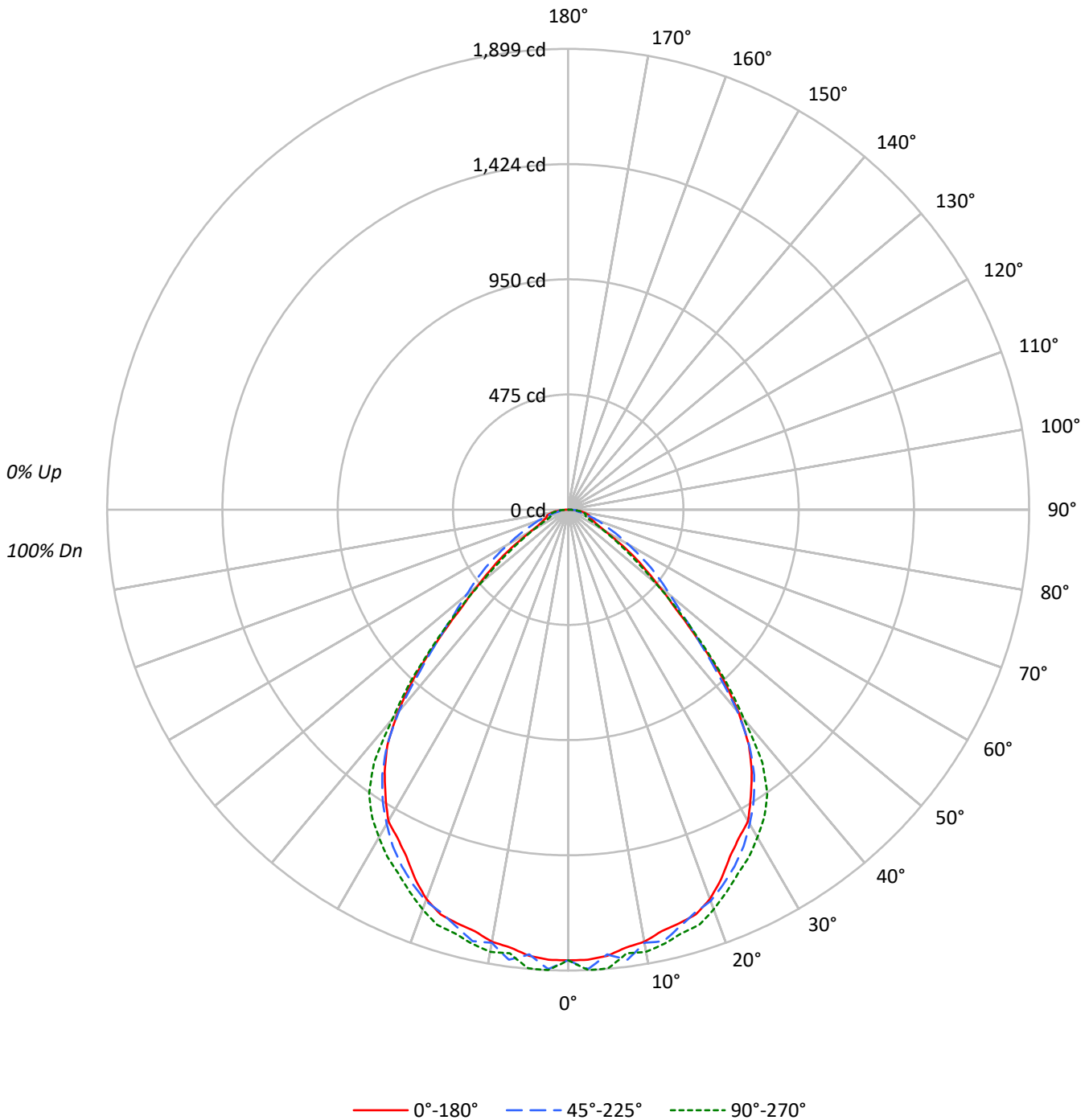
Input Watts (W): 28.086  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4997	4997	4997
5°	4984	4968	5125
10°	4939	4952	5056
15°	4916	4953	5033
20°	4890	4914	5019
25°	4681	4813	4913
30°	4604	4646	4844
35°	4330	4385	4696
40°	3837	3810	3960
45°	2866	2872	2952
50°	2017	2295	1954
55°	1489	1938	1335
60°	931	1532	872
65°	759	1214	609
70°	753	1010	601
75°	934	742	777
80°	1041	586	950
85°	1037	1090	1062



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.8	5.0
10°-20°	503.5	14.1
20°-30°	745.7	20.9
30°-40°	835.3	23.4
40°-50°	613.8	17.2
50°-60°	343.1	9.6
60°-70°	191.2	5.4
70°-80°	112.4	3.2
80°-90°	41.3	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°	1426.0	40.0
0°-40°	2261.3	63.5
0°-60°	3218.1	90.3
0°-90°	3563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3563.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1857	1857	1857	1857	1857	
5°	1845	1880	1839	1877	1897	175
15°	1765	1776	1778	1805	1807	498
25°	1576	1589	1621	1644	1655	731
35°	1318	1319	1335	1395	1430	817
45°	753	814	755	808	776	588
55°	317	386	413	412	285	283
65°	119	212	191	244	96	123
75°	90	127	71	144	75	90
85°	34	50	35	45	34	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1856.9	1856.9	1856.9	1856.9	1856.9
2.5°	1856.1	1872.9	1894.7	1897.2	1898.9
5°	1845.2	1879.6	1839.3	1877.1	1897.2
7.5°	1820.0	1841.0	1870.4	1832.6	1843.5
10°	1807.4	1812.4	1812.4	1859.5	1850.2
12.5°	1778.9	1812.4	1820.8	1811.6	1831.8
15°	1764.6	1775.5	1778.0	1804.9	1806.6
17.5°	1748.6	1746.1	1740.2	1759.6	1794.0
20°	1707.5	1698.3	1715.9	1739.4	1752.8
22.5°	1647.1	1649.6	1670.6	1689.9	1705.0
25°	1576.5	1589.1	1621.0	1643.7	1654.6
27.5°	1523.7	1542.1	1564.0	1590.8	1612.6
30°	1481.7	1480.0	1495.1	1533.7	1558.9
32.5°	1400.3	1406.1	1422.1	1468.3	1503.5
35°	1318.0	1318.8	1334.8	1395.2	1429.6
37.5°	1223.1	1216.4	1225.6	1291.1	1313.8
40°	1092.2	1093.8	1084.6	1130.8	1127.4
42.5°	939.4	952.8	905.0	965.4	961.2
45°	753.0	814.3	754.7	808.4	775.7
47.5°	594.4	685.0	635.5	674.9	613.7
50°	481.9	575.0	548.2	565.8	466.8
52.5°	395.4	471.0	479.3	483.5	364.3
55°	317.3	386.2	413.0	412.2	284.6
57.5°	234.2	314.0	345.0	357.6	215.7
60°	172.9	261.1	284.6	312.3	162.0
62.5°	139.4	229.2	235.1	273.7	123.4
65°	119.2	211.5	190.6	244.3	95.7
67.5°	105.8	197.3	155.3	218.3	81.4
70°	95.7	175.5	128.4	195.6	76.4
72.5°	93.2	149.4	99.1	174.6	75.6
75°	89.8	126.8	71.4	143.6	74.7
77.5°	77.2	108.3	51.2	110.8	69.7
80°	67.2	86.5	37.8	83.1	61.3
82.5°	52.0	65.5	33.6	63.0	49.5
85°	33.6	49.5	35.3	45.3	34.4
87.5°	16.0	27.7	25.2	24.3	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)