

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: P292540

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292540  
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-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3776.0 lumens  
Efficiency: N/A  
Efficacy: 128.1 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

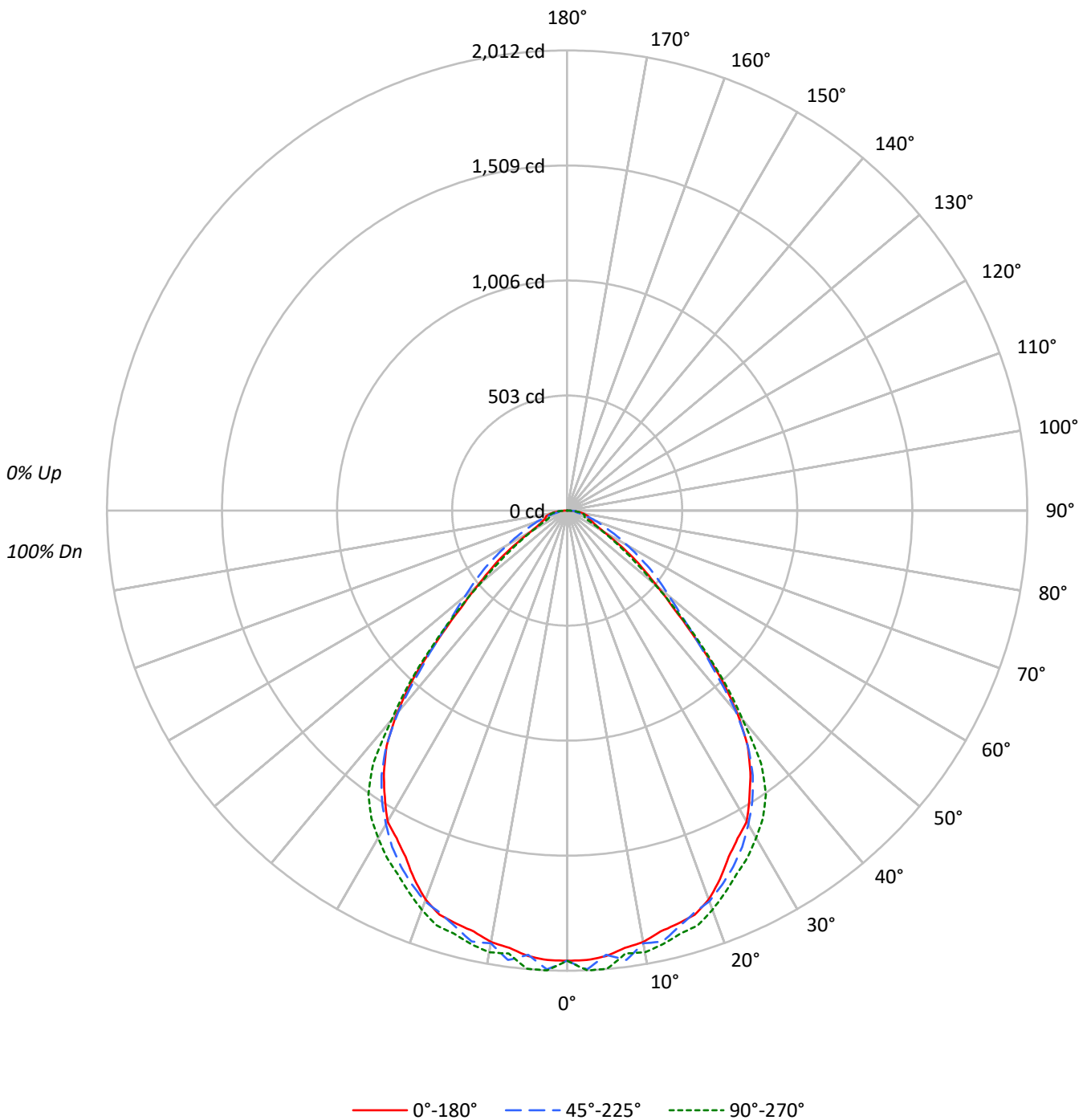
Input Watts (W): 29.481  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5296	5296	5296
5°	5282	5266	5431
10°	5234	5249	5358
15°	5210	5249	5334
20°	5182	5208	5320
25°	4961	5101	5206
30°	4879	4923	5134
35°	4589	4647	4977
40°	4066	4038	4197
45°	3037	3044	3129
50°	2138	2432	2071
55°	1578	2054	1415
60°	987	1623	924
65°	804	1286	646
70°	798	1071	637
75°	990	786	823
80°	1103	620	1006
85°	1099	1155	1127



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.3	5.0
10°-20°	533.6	14.1
20°-30°	790.3	20.9
30°-40°	885.2	23.4
40°-50°	650.5	17.2
50°-60°	363.6	9.6
60°-70°	202.6	5.4
70°-80°	119.1	3.2
80°-90°	43.8	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°	1511.2	40.0
0°-40°	2396.5	63.5
0°-60°	3410.5	90.3
0°-90°	3776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3776.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1968	1968	1968	1968	1968	
5°	1956	1992	1949	1989	2011	185
15°	1870	1882	1884	1913	1915	528
25°	1671	1684	1718	1742	1754	774
35°	1397	1398	1415	1479	1515	865
45°	798	863	800	857	822	623
55°	336	409	438	437	302	300
65°	126	224	202	259	101	131
75°	95	134	76	152	79	96
85°	36	52	37	48	36	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1967.9	1967.9	1967.9	1967.9	1967.9
2.5°	1967.1	1984.8	2008.0	2010.7	2012.4
5°	1955.5	1992.0	1949.3	1989.3	2010.7
7.5°	1928.8	1951.0	1982.2	1942.1	1953.7
10°	1915.5	1920.8	1920.8	1970.6	1960.8
12.5°	1885.2	1920.8	1929.7	1919.9	1941.3
15°	1870.1	1881.6	1884.3	1912.8	1914.6
17.5°	1853.2	1850.5	1844.3	1864.7	1901.2
20°	1809.6	1799.8	1818.5	1843.4	1857.6
22.5°	1745.5	1748.2	1770.4	1790.9	1806.9
25°	1670.8	1684.1	1717.9	1742.0	1753.5
27.5°	1614.7	1634.3	1657.5	1685.9	1709.1
30°	1570.3	1568.5	1584.5	1625.4	1652.1
32.5°	1484.0	1490.2	1507.1	1556.0	1593.4
35°	1396.8	1397.7	1414.6	1478.6	1515.1
37.5°	1296.2	1289.1	1298.9	1368.3	1392.3
40°	1157.5	1159.2	1149.5	1198.4	1194.8
42.5°	995.5	1009.8	959.1	1023.1	1018.7
45°	798.0	863.0	799.8	856.8	822.1
47.5°	629.9	726.0	673.5	715.3	650.3
50°	510.7	609.4	581.0	599.6	494.7
52.5°	419.0	499.1	508.0	512.4	386.1
55°	336.3	409.2	437.7	436.8	301.6
57.5°	248.2	332.7	365.7	379.0	228.6
60°	183.3	276.7	301.6	331.0	171.7
62.5°	147.7	242.9	249.1	290.0	130.8
65°	126.3	224.2	202.0	258.9	101.4
67.5°	112.1	209.1	164.6	231.3	86.3
70°	101.4	185.9	136.1	207.3	81.0
72.5°	98.8	158.4	105.0	185.1	80.1
75°	95.2	134.3	75.6	152.1	79.2
77.5°	81.8	114.8	54.3	117.4	73.8
80°	71.2	91.6	40.0	88.1	64.9
82.5°	55.2	69.4	35.6	66.7	52.5
85°	35.6	52.5	37.4	48.0	36.5
87.5°	16.9	29.4	26.7	25.8	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)