

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: P292595

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292595  
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-L82765-W2A1-U-5700K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3714.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 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

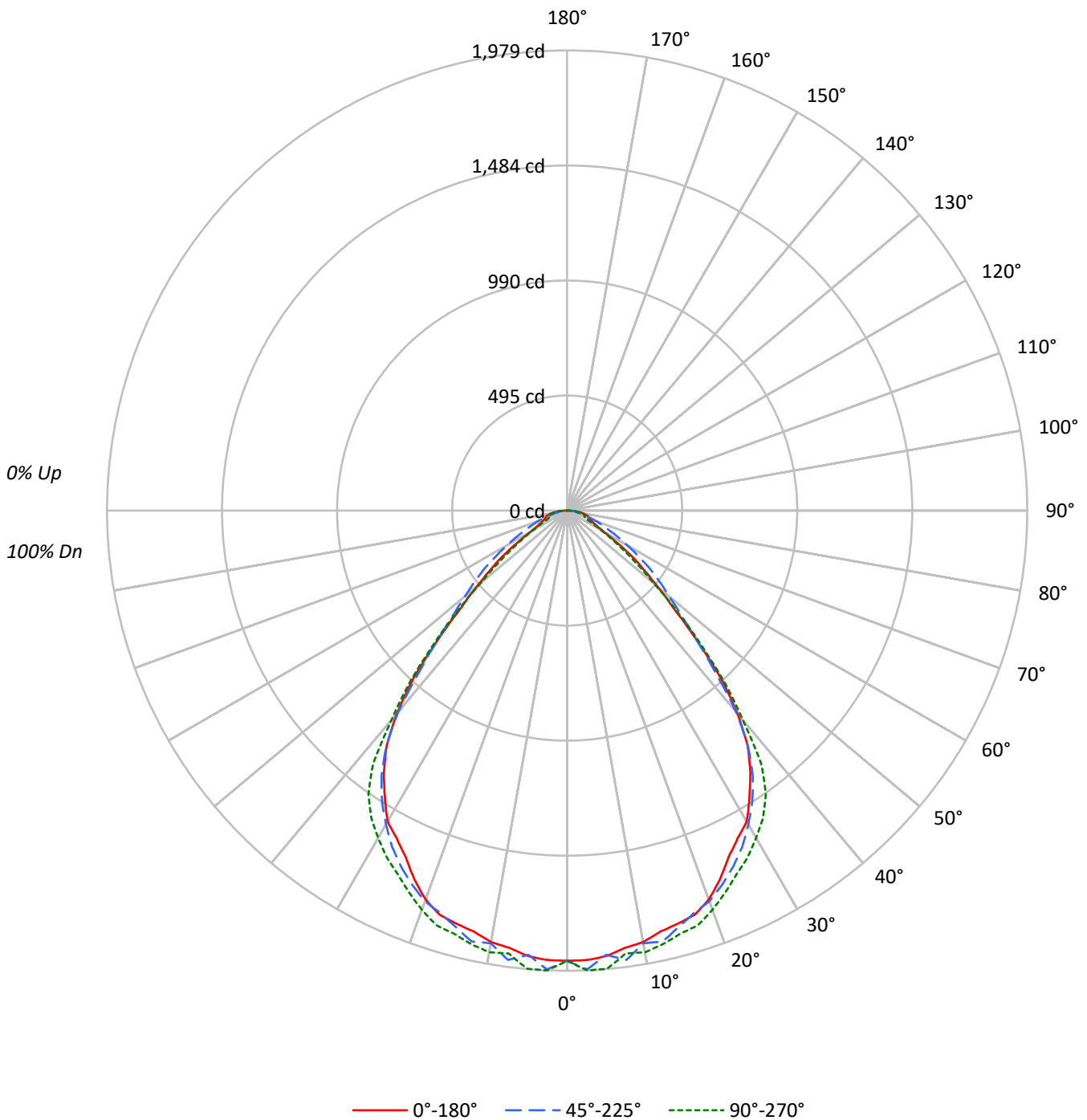
Input Watts (W): 28.83  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5209	5209	5209
5°	5196	5179	5342
10°	5148	5162	5270
15°	5124	5163	5246
20°	5097	5122	5232
25°	4880	5017	5121
30°	4799	4843	5049
35°	4513	4571	4895
40°	3999	3972	4128
45°	2987	2994	3077
50°	2103	2392	2037
55°	1552	2020	1392
60°	970	1596	909
65°	791	1265	635
70°	785	1054	626
75°	973	774	810
80°	1085	611	990
85°	1081	1136	1108



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.3	5.0
10°-20°	524.8	14.1
20°-30°	777.3	20.9
30°-40°	870.7	23.4
40°-50°	639.8	17.2
50°-60°	357.6	9.6
60°-70°	199.3	5.4
70°-80°	117.1	3.2
80°-90°	43.1	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°	1486.4	40.0
0°-40°	2357.1	63.5
0°-60°	3354.5	90.3
0°-90°	3714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3714.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1936	1936	1936	1936	1936	
5°	1923	1959	1917	1957	1978	182
15°	1839	1851	1853	1881	1883	519
25°	1643	1656	1690	1713	1725	762
35°	1374	1375	1391	1454	1490	851
45°	785	849	787	843	809	613
55°	331	402	430	430	297	295
65°	124	220	199	255	100	129
75°	94	132	74	150	78	94
85°	35	52	37	47	36	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1935.6	1935.6	1935.6	1935.6	1935.6
2.5°	1934.8	1952.3	1975.0	1977.6	1979.4
5°	1923.4	1959.3	1917.3	1956.6	1977.6
7.5°	1897.1	1919.0	1949.6	1910.3	1921.6
10°	1884.0	1889.3	1889.3	1938.3	1928.6
12.5°	1854.3	1889.3	1898.0	1888.4	1909.4
15°	1839.4	1850.8	1853.4	1881.4	1883.1
17.5°	1822.8	1820.1	1814.0	1834.1	1870.0
20°	1779.9	1770.2	1788.6	1813.1	1827.1
22.5°	1716.9	1719.5	1741.4	1761.5	1777.2
25°	1643.4	1656.5	1689.7	1713.4	1724.7
27.5°	1588.2	1607.5	1630.2	1658.2	1681.0
30°	1544.5	1542.7	1558.5	1598.7	1625.0
32.5°	1459.6	1465.7	1482.4	1530.5	1567.2
35°	1373.8	1374.7	1391.3	1454.4	1490.2
37.5°	1275.0	1268.0	1277.6	1345.8	1369.5
40°	1138.5	1140.2	1130.6	1178.7	1175.2
42.5°	979.2	993.2	943.3	1006.3	1001.9
45°	784.9	848.8	786.7	842.7	808.6
47.5°	619.5	714.0	662.4	703.5	639.7
50°	502.3	599.4	571.4	589.8	486.5
52.5°	412.2	490.9	499.7	504.0	379.8
55°	330.8	402.5	430.5	429.7	296.6
57.5°	244.1	327.3	359.6	372.8	224.9
60°	180.3	272.1	296.6	325.5	168.9
62.5°	145.3	238.9	245.0	285.3	128.6
65°	124.3	220.5	198.6	254.6	99.8
67.5°	110.3	205.6	161.9	227.5	84.9
70°	99.8	182.9	133.9	203.9	79.6
72.5°	97.1	155.8	103.3	182.0	78.8
75°	93.6	132.1	74.4	149.6	77.9
77.5°	80.5	112.9	53.4	115.5	72.6
80°	70.0	90.1	39.4	86.6	63.9
82.5°	54.3	68.3	35.0	65.6	51.6
85°	35.0	51.6	36.8	47.3	35.9
87.5°	16.6	28.9	26.3	25.4	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)