

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: P292698

Luminaire Tested: **22GR-LD5-40-A19/156-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292698  
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-LD5-40-A19/156-UNV-L92765-W2A1-U-4000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3547.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 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

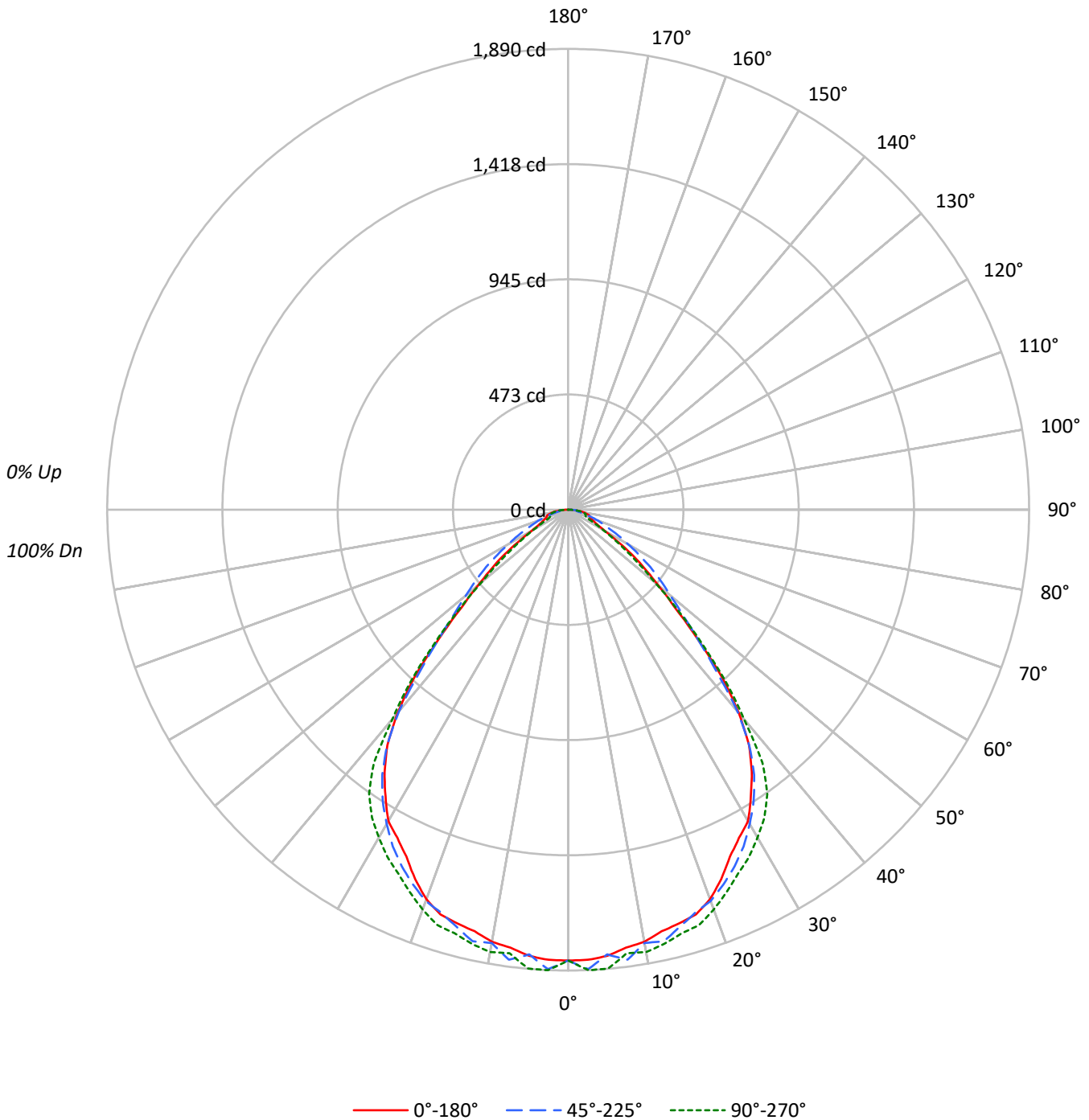
Input Watts (W): 32.736  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4975	4975	4975
5°	4962	4946	5102
10°	4917	4930	5033
15°	4894	4931	5010
20°	4868	4892	4997
25°	4660	4792	4891
30°	4583	4625	4822
35°	4310	4365	4675
40°	3819	3793	3943
45°	2853	2859	2939
50°	2008	2285	1945
55°	1482	1929	1329
60°	927	1525	868
65°	756	1208	607
70°	750	1006	598
75°	930	738	774
80°	1037	583	945
85°	1031	1084	1059



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.0	5.0
10°-20°	501.2	14.1
20°-30°	742.4	20.9
30°-40°	831.6	23.4
40°-50°	611.0	17.2
50°-60°	341.5	9.6
60°-70°	190.4	5.4
70°-80°	111.8	3.2
80°-90°	41.1	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°	1419.6	40.0
0°-40°	2251.1	63.5
0°-60°	3203.7	90.3
0°-90°	3547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3547.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1849	1849	1849	1849	1849	
5°	1837	1871	1831	1869	1889	174
15°	1757	1768	1770	1797	1798	496
25°	1570	1582	1614	1636	1647	727
35°	1312	1313	1329	1389	1423	813
45°	750	811	751	805	772	586
55°	316	384	411	410	283	282
65°	119	211	190	243	95	123
75°	89	126	71	143	74	90
85°	33	49	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°	1848.6	1848.6	1848.6	1848.6	1848.6
2.5°	1847.8	1864.5	1886.2	1888.7	1890.4
5°	1836.9	1871.2	1831.0	1868.7	1888.7
7.5°	1811.8	1832.7	1862.0	1824.4	1835.2
10°	1799.3	1804.3	1804.3	1851.1	1841.9
12.5°	1770.9	1804.3	1812.7	1803.5	1823.5
15°	1756.7	1767.5	1770.0	1796.8	1798.5
17.5°	1740.8	1738.3	1732.4	1751.7	1785.9
20°	1699.8	1690.6	1708.2	1731.6	1745.0
22.5°	1639.7	1642.2	1663.1	1682.3	1697.3
25°	1569.5	1582.0	1613.8	1636.3	1647.2
27.5°	1516.8	1535.2	1556.9	1583.7	1605.4
30°	1475.0	1473.4	1488.4	1526.8	1551.9
32.5°	1394.0	1399.8	1415.7	1461.7	1496.8
35°	1312.1	1312.9	1328.8	1389.0	1423.2
37.5°	1217.6	1210.9	1220.1	1285.3	1307.9
40°	1087.3	1088.9	1079.7	1125.7	1122.4
42.5°	935.2	948.5	900.9	961.1	956.9
45°	749.6	810.6	751.3	804.8	772.2
47.5°	591.7	681.9	632.6	671.9	610.9
50°	479.7	572.5	545.7	563.3	464.7
52.5°	393.6	468.8	477.2	481.4	362.7
55°	315.9	384.4	411.2	410.3	283.3
57.5°	233.2	312.6	343.5	356.0	214.8
60°	172.2	259.9	283.3	310.9	161.3
62.5°	138.7	228.1	234.0	272.4	122.8
65°	118.7	210.6	189.7	243.2	95.3
67.5°	105.3	196.4	154.6	217.3	81.1
70°	95.3	174.7	127.9	194.7	76.0
72.5°	92.8	148.8	98.6	173.8	75.2
75°	89.4	126.2	71.0	142.9	74.4
77.5°	76.9	107.8	51.0	110.3	69.4
80°	66.9	86.1	37.6	82.7	61.0
82.5°	51.8	65.2	33.4	62.7	49.3
85°	33.4	49.3	35.1	45.1	34.3
87.5°	15.9	27.6	25.1	24.2	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)