

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: P292689

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292689  
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-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: 3147.0 lumens  
Efficiency: N/A  
Efficacy: 110.6 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

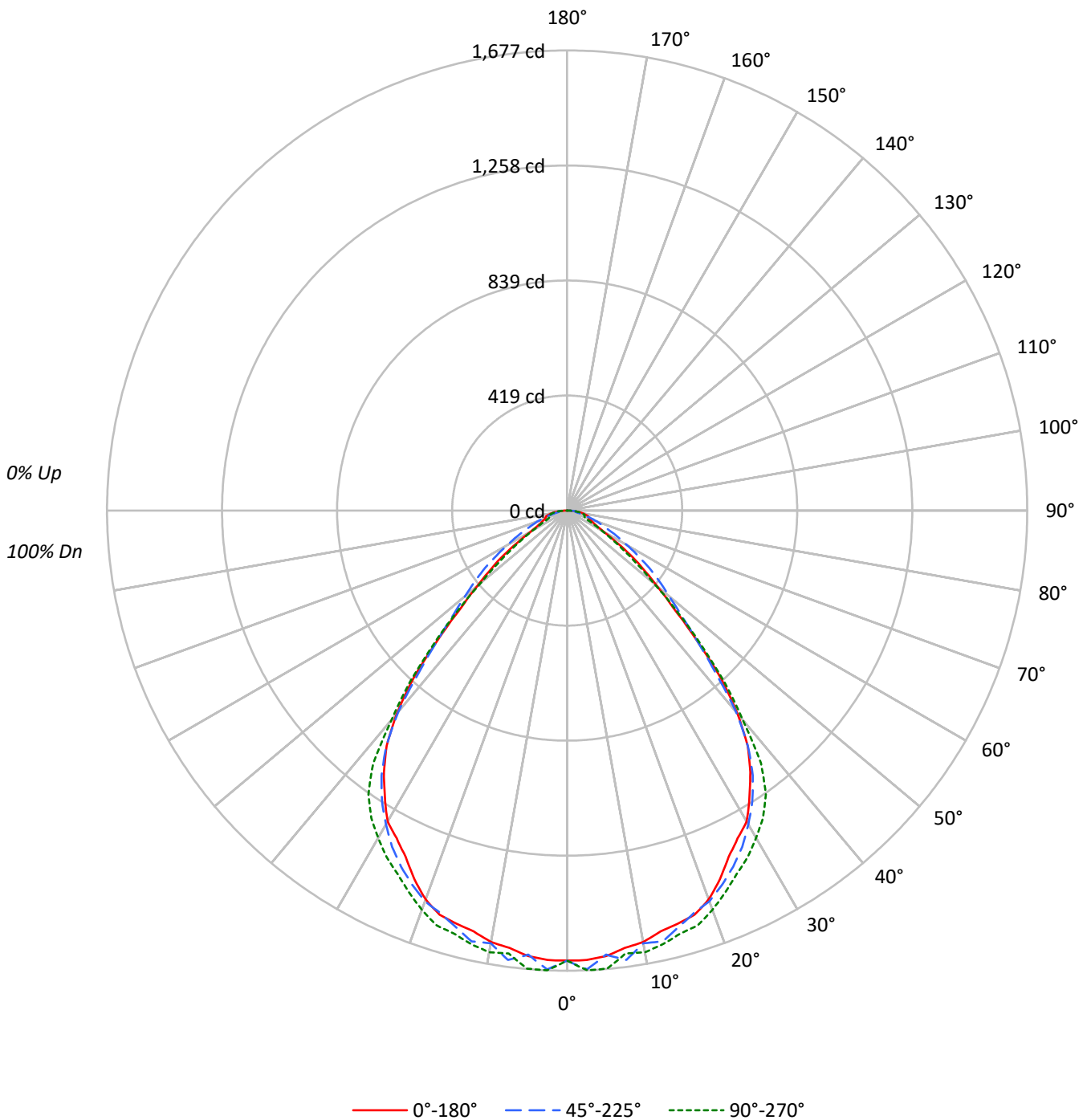
Input Watts (W): 28.458  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4413	4413	4413
5°	4402	4388	4526
10°	4362	4374	4465
15°	4342	4375	4445
20°	4319	4340	4434
25°	4135	4251	4339
30°	4066	4103	4278
35°	3824	3873	4148
40°	3389	3365	3498
45°	2531	2537	2607
50°	1782	2027	1726
55°	1315	1711	1179
60°	822	1353	770
65°	670	1072	538
70°	665	892	531
75°	824	655	686
80°	919	518	838
85°	917	960	939



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.1	5.0
10°-20°	444.7	14.1
20°-30°	658.7	20.9
30°-40°	737.8	23.4
40°-50°	542.1	17.2
50°-60°	303.0	9.6
60°-70°	168.9	5.4
70°-80°	99.2	3.2
80°-90°	36.5	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°	1259.5	40.0
0°-40°	1997.3	63.5
0°-60°	2842.4	90.3
0°-90°	3147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3147.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1640	1640	1640	1640	1640	
5°	1630	1660	1625	1658	1676	154
15°	1559	1568	1570	1594	1596	440
25°	1392	1404	1432	1452	1461	645
35°	1164	1165	1179	1232	1263	721
45°	665	719	667	714	685	520
55°	280	341	365	364	251	250
65°	105	187	168	216	84	109
75°	79	112	63	127	66	80
85°	30	44	31	40	30	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1640.1	1640.1	1640.1	1640.1	1640.1
2.5°	1639.4	1654.2	1673.5	1675.7	1677.2
5°	1629.7	1660.1	1624.6	1657.9	1675.7
7.5°	1607.5	1626.0	1652.0	1618.6	1628.3
10°	1596.4	1600.8	1600.8	1642.4	1634.2
12.5°	1571.2	1600.8	1608.2	1600.1	1617.9
15°	1558.6	1568.2	1570.4	1594.2	1595.6
17.5°	1544.5	1542.3	1537.1	1554.1	1584.5
20°	1508.1	1500.0	1515.6	1536.3	1548.2
22.5°	1454.8	1457.0	1475.5	1492.6	1505.9
25°	1392.5	1403.6	1431.8	1451.8	1461.4
27.5°	1345.8	1362.1	1381.4	1405.1	1424.4
30°	1308.7	1307.2	1320.6	1354.7	1376.9
32.5°	1236.8	1242.0	1256.0	1296.8	1328.0
35°	1164.1	1164.8	1178.9	1232.3	1262.7
37.5°	1080.3	1074.4	1082.5	1140.4	1160.4
40°	964.7	966.1	958.0	998.8	995.8
42.5°	829.7	841.6	799.3	852.7	849.0
45°	665.1	719.2	666.6	714.0	685.1
47.5°	525.0	605.0	561.3	596.1	542.0
50°	425.6	507.9	484.2	499.7	412.3
52.5°	349.2	416.0	423.4	427.1	321.8
55°	280.3	341.1	364.8	364.1	251.4
57.5°	206.9	277.3	304.7	315.9	190.6
60°	152.7	230.6	251.4	275.8	143.1
62.5°	123.1	202.4	207.6	241.7	109.0
65°	105.3	186.9	168.3	215.8	84.5
67.5°	93.4	174.2	137.2	192.8	71.9
70°	84.5	155.0	113.4	172.8	67.5
72.5°	82.3	132.0	87.5	154.2	66.7
75°	79.3	112.0	63.0	126.8	66.0
77.5°	68.2	95.6	45.2	97.9	61.5
80°	59.3	76.4	33.4	73.4	54.1
82.5°	46.0	57.8	29.7	55.6	43.7
85°	29.7	43.7	31.1	40.0	30.4
87.5°	14.1	24.5	22.2	21.5	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)