

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: P292535

Luminaire Tested: **22GR-LD5-32-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292535  
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-LD5-32-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: 3364.0 lumens  
Efficiency: N/A  
Efficacy: 130.6 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

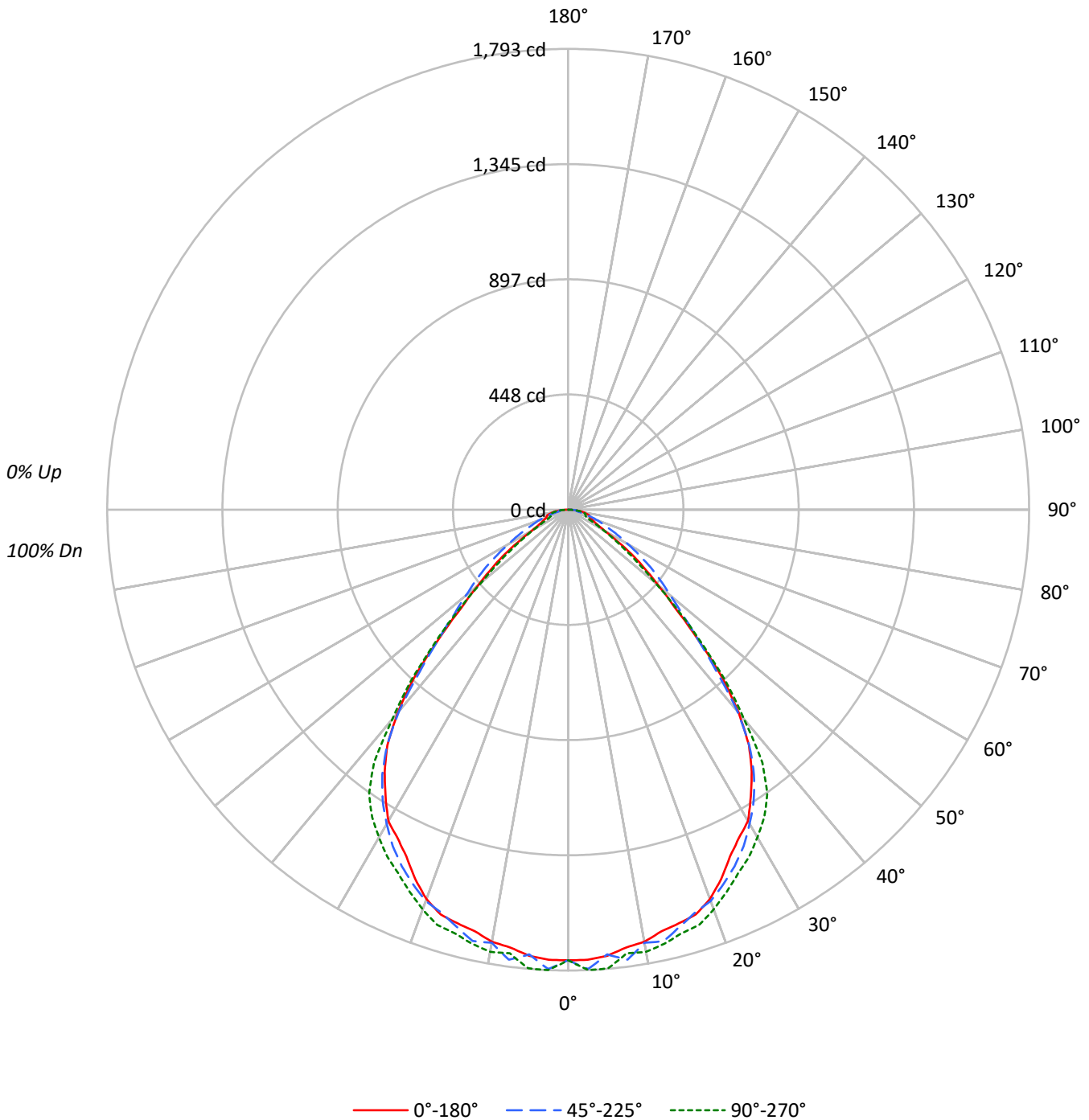
Input Watts (W): 25.761  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96		97	95	93		93	91	90	88
2	103	96	90	85	100	94	89	85	91	86	83		88	84	81		85	82	79	77
3	95	86	79	74	93	85	79	73	82	77	72		79	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	75	68	64		72	67	63		70	66	62	60
5	82	71	63	58	80	70	63	57	68	62	57		66	61	56		64	59	56	54
6	77	65	57	51	75	64	57	51	62	56	51		61	55	50		59	54	50	48
7	72	60	52	46	70	59	51	46	57	51	46		56	50	46		55	49	45	44
8	67	55	47	42	66	54	47	42	53	46	42		52	46	41		51	45	41	40
9	63	51	43	38	62	50	43	38	49	43	38		48	42	38		47	42	38	36
10	59	47	40	35	58	47	40	35	46	39	35		45	39	35		44	39	35	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4718	4718	4718
5°	4706	4691	4839
10°	4663	4676	4773
15°	4641	4677	4752
20°	4617	4639	4739
25°	4420	4544	4638
30°	4347	4386	4574
35°	4088	4140	4434
40°	3622	3597	3739
45°	2706	2712	2787
50°	1905	2167	1845
55°	1406	1830	1261
60°	879	1446	823
65°	716	1145	576
70°	711	954	567
75°	882	701	733
80°	982	553	897
85°	979	1028	1003



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.9	5.0
10°-20°	475.4	14.1
20°-30°	704.1	20.9
30°-40°	788.7	23.4
40°-50°	579.5	17.2
50°-60°	323.9	9.6
60°-70°	180.5	5.4
70°-80°	106.1	3.2
80°-90°	39.0	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°	1346.4	40.0
0°-40°	2135.0	63.5
0°-60°	3038.4	90.3
0°-90°	3364.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3364.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1753	1753	1753	1753	1753	
5°	1742	1775	1737	1772	1791	165
15°	1666	1676	1679	1704	1706	471
25°	1488	1500	1530	1552	1562	690
35°	1244	1245	1260	1317	1350	771
45°	711	769	712	763	732	555
55°	300	365	390	389	269	267
65°	112	200	180	231	90	116
75°	85	120	67	136	70	85
85°	32	47	33	43	32	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1753.2	1753.2	1753.2	1753.2	1753.2
2.5°	1752.4	1768.3	1788.9	1791.3	1792.9
5°	1742.1	1774.6	1736.6	1772.2	1791.3
7.5°	1718.3	1738.2	1765.9	1730.2	1740.5
10°	1706.5	1711.2	1711.2	1755.6	1746.9
12.5°	1679.5	1711.2	1719.1	1710.4	1729.4
15°	1666.0	1676.3	1678.7	1704.1	1705.7
17.5°	1651.0	1648.6	1643.1	1661.3	1693.8
20°	1612.1	1603.4	1620.1	1642.3	1654.9
22.5°	1555.1	1557.5	1577.3	1595.5	1609.8
25°	1488.5	1500.4	1530.5	1551.9	1562.2
27.5°	1438.6	1456.0	1476.6	1502.0	1522.6
30°	1398.9	1397.3	1411.6	1448.1	1471.9
32.5°	1322.1	1327.6	1342.7	1386.3	1419.5
35°	1244.4	1245.2	1260.2	1317.3	1349.8
37.5°	1154.8	1148.5	1157.2	1219.0	1240.4
40°	1031.2	1032.8	1024.0	1067.6	1064.5
42.5°	886.9	899.6	854.4	911.5	907.5
45°	711.0	768.8	712.5	763.3	732.4
47.5°	561.2	646.8	600.0	637.2	579.4
50°	455.0	542.9	517.6	534.2	440.7
52.5°	373.3	444.6	452.6	456.5	344.0
55°	299.6	364.6	390.0	389.2	268.7
57.5°	221.1	296.4	325.8	337.6	203.7
60°	163.3	246.5	268.7	294.8	153.0
62.5°	131.6	216.4	221.9	258.4	116.5
65°	112.5	199.7	179.9	230.6	90.4
67.5°	99.9	186.3	146.6	206.1	76.9
70°	90.4	165.7	121.3	184.7	72.1
72.5°	88.0	141.1	93.5	164.9	71.3
75°	84.8	119.7	67.4	135.5	70.5
77.5°	72.9	102.2	48.3	104.6	65.8
80°	63.4	81.6	35.7	78.5	57.9
82.5°	49.1	61.8	31.7	59.4	46.8
85°	31.7	46.8	33.3	42.8	32.5
87.5°	15.1	26.2	23.8	23.0	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)