

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: P292633

Luminaire Tested: **22GR-LD5-32-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292633  
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-L93050-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2964.0 lumens  
Efficiency: N/A  
Efficacy: 115.9 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

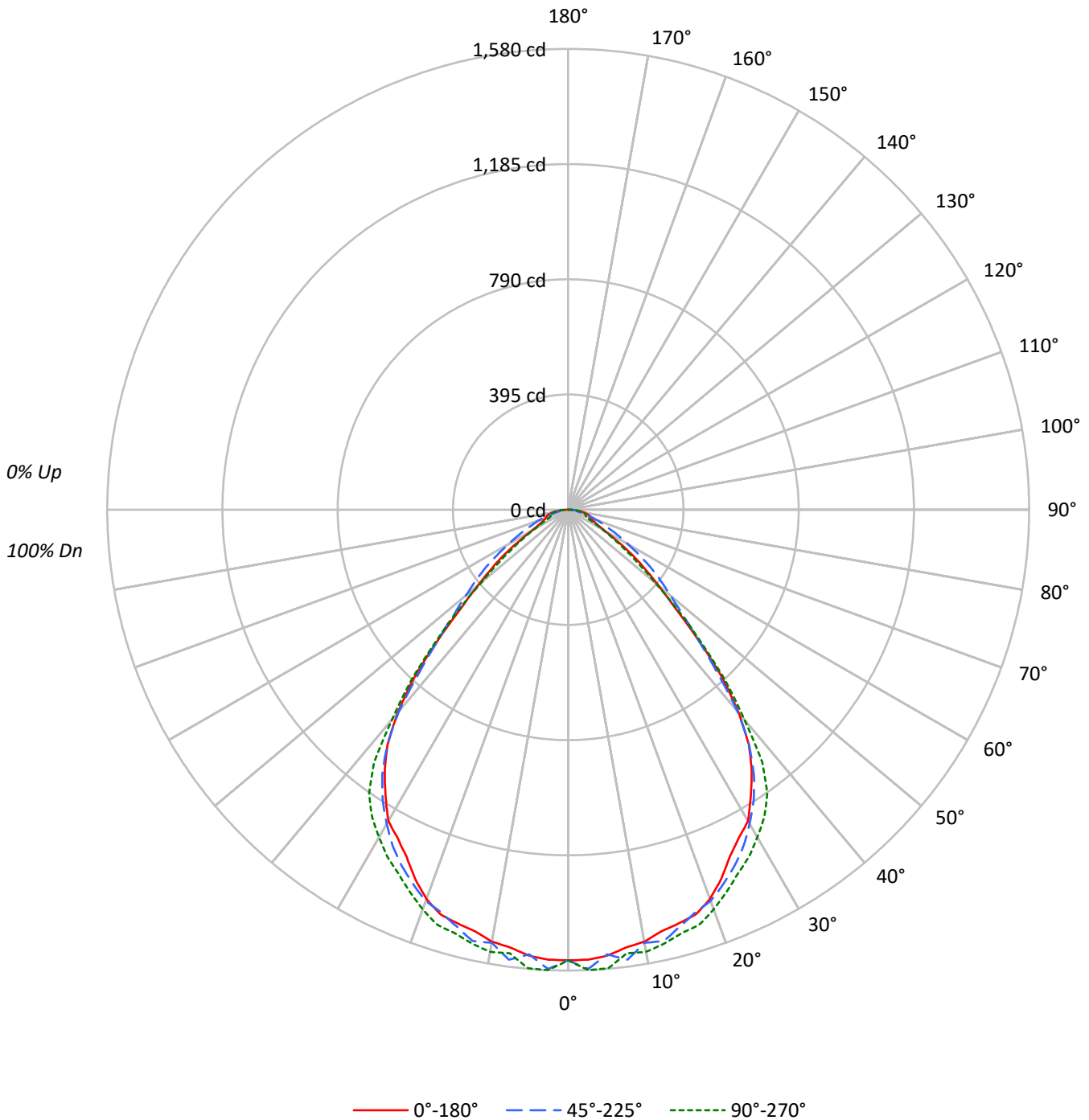
Input Watts (W): 25.575  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4157	4157	4157
5°	4146	4133	4263
10°	4109	4120	4206
15°	4089	4121	4187
20°	4068	4088	4176
25°	3894	4004	4087
30°	3830	3865	4030
35°	3602	3648	3907
40°	3192	3170	3295
45°	2384	2389	2456
50°	1678	1909	1626
55°	1239	1612	1110
60°	774	1274	725
65°	632	1009	507
70°	626	840	500
75°	777	618	647
80°	866	487	790
85°	861	905	883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.1	5.0
10°-20°	418.9	14.1
20°-30°	620.4	20.9
30°-40°	694.9	23.4
40°-50°	510.6	17.2
50°-60°	285.4	9.6
60°-70°	159.1	5.4
70°-80°	93.5	3.2
80°-90°	34.3	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°	1186.3	40.0
0°-40°	1881.1	63.5
0°-60°	2677.1	90.3
0°-90°	2964.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2964.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1545	1545	1545	1545	1545	
5°	1535	1564	1530	1562	1578	145
15°	1468	1477	1479	1502	1503	415
25°	1312	1322	1348	1367	1376	608
35°	1096	1097	1110	1161	1189	679
45°	626	677	628	672	645	489
55°	264	321	344	343	237	236
65°	99	176	158	203	80	103
75°	75	106	59	119	62	75
85°	28	41	29	38	29	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1544.8	1544.8	1544.8	1544.8	1544.8
2.5°	1544.1	1558.0	1576.2	1578.3	1579.7
5°	1535.0	1563.6	1530.1	1561.5	1578.3
7.5°	1514.0	1531.5	1555.9	1524.5	1533.6
10°	1503.6	1507.7	1507.7	1546.8	1539.2
12.5°	1479.8	1507.7	1514.7	1507.0	1523.8
15°	1467.9	1477.0	1479.1	1501.5	1502.9
17.5°	1454.7	1452.6	1447.7	1463.7	1492.4
20°	1420.4	1412.8	1427.4	1447.0	1458.2
22.5°	1370.2	1372.3	1389.7	1405.8	1418.4
25°	1311.5	1322.0	1348.5	1367.4	1376.5
27.5°	1267.5	1282.9	1301.0	1323.4	1341.5
30°	1232.6	1231.2	1243.8	1275.9	1296.8
32.5°	1164.9	1169.7	1183.0	1221.4	1250.7
35°	1096.4	1097.1	1110.4	1160.7	1189.3
37.5°	1017.5	1011.9	1019.6	1074.1	1092.9
40°	908.6	910.0	902.3	940.7	937.9
42.5°	781.5	792.6	752.8	803.1	799.6
45°	626.4	677.4	627.8	672.5	645.3
47.5°	494.4	569.9	528.7	561.5	510.5
50°	400.9	478.4	456.0	470.7	388.3
52.5°	328.9	391.8	398.8	402.3	303.1
55°	264.0	321.2	343.6	342.9	236.7
57.5°	194.8	261.2	287.0	297.5	179.5
60°	143.9	217.2	236.7	259.8	134.8
62.5°	115.9	190.7	195.5	227.7	102.7
65°	99.2	176.0	158.5	203.2	79.6
67.5°	88.0	164.1	129.2	181.6	67.7
70°	79.6	146.0	106.8	162.7	63.6
72.5°	77.5	124.3	82.4	145.3	62.9
75°	74.7	105.5	59.4	119.4	62.2
77.5°	64.2	90.1	42.6	92.2	58.0
80°	55.9	71.9	31.4	69.1	51.0
82.5°	43.3	54.5	27.9	52.4	41.2
85°	27.9	41.2	29.3	37.7	28.6
87.5°	13.3	23.0	21.0	20.3	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)