

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: P292583

Luminaire Tested: **22GR-LD5-32-A19/156-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292583  
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-L82765-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: 3224.0 lumens  
Efficiency: N/A  
Efficacy: 128.9 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

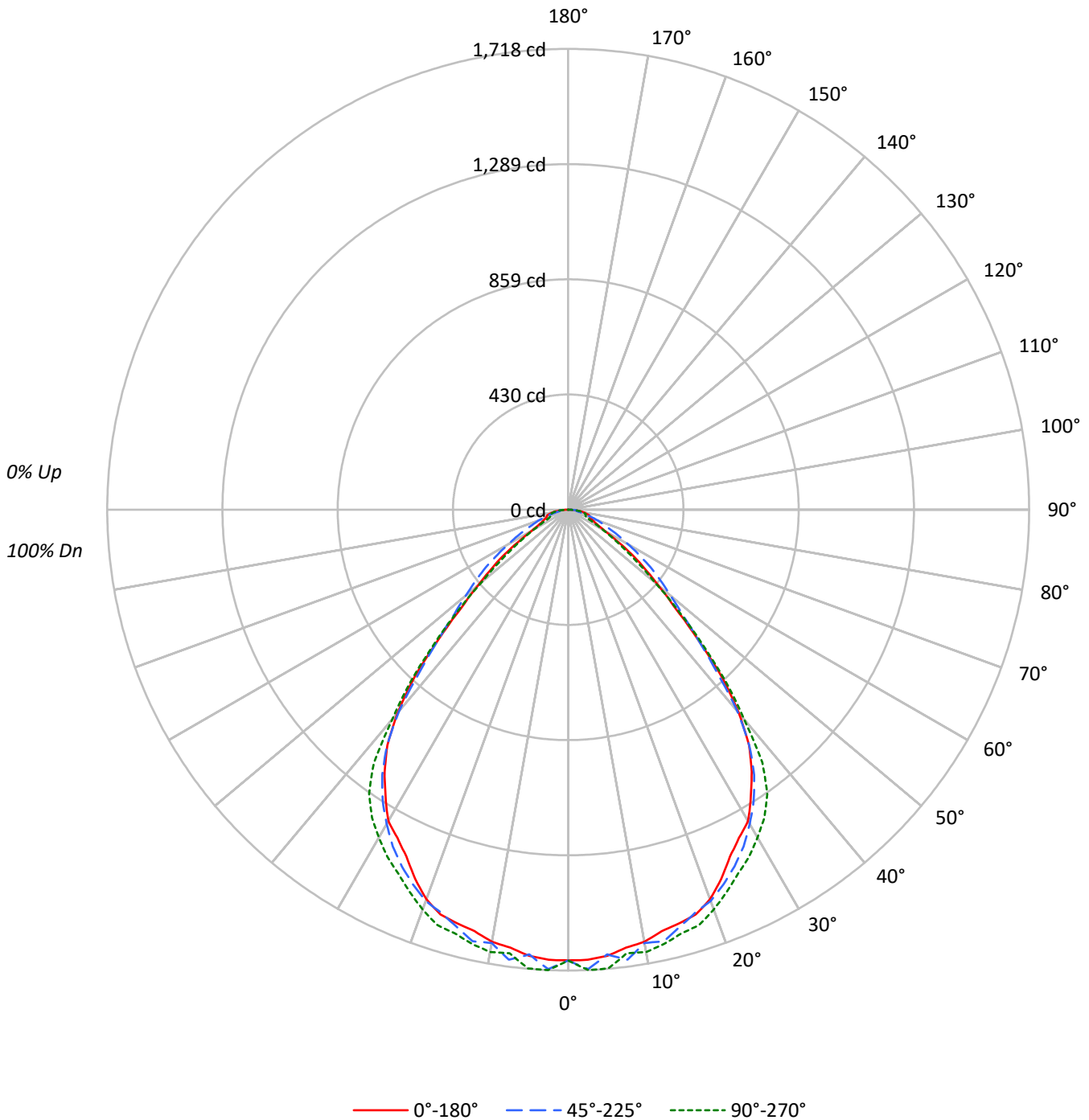
Input Watts (W): 25.017  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4522	4522	4522
5°	4510	4496	4637
10°	4469	4481	4575
15°	4448	4482	4554
20°	4424	4446	4542
25°	4236	4355	4445
30°	4166	4204	4383
35°	3918	3968	4250
40°	3472	3447	3584
45°	2593	2599	2671
50°	1825	2076	1768
55°	1347	1753	1208
60°	842	1386	789
65°	687	1098	551
70°	681	914	544
75°	845	672	703
80°	942	530	860
85°	939	985	960



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.0	5.0
10°-20°	455.6	14.1
20°-30°	674.8	20.9
30°-40°	755.8	23.4
40°-50°	555.4	17.2
50°-60°	310.4	9.6
60°-70°	173.0	5.4
70°-80°	101.7	3.2
80°-90°	37.4	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°	1290.3	40.0
0°-40°	2046.2	63.5
0°-60°	2912.0	90.3
0°-90°	3224.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3224.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1680	1680	1680	1680	1680	
5°	1670	1701	1664	1698	1717	158
15°	1597	1607	1609	1633	1635	451
25°	1426	1438	1467	1487	1497	661
35°	1193	1193	1208	1262	1294	739
45°	681	737	683	732	702	532
55°	287	349	374	373	258	256
65°	108	191	172	221	87	112
75°	81	115	65	130	68	82
85°	30	45	32	41	31	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1680.3	1680.3	1680.3	1680.3	1680.3
2.5°	1679.5	1694.7	1714.4	1716.7	1718.2
5°	1669.6	1700.8	1664.3	1698.5	1716.7
7.5°	1646.8	1665.8	1692.4	1658.2	1668.1
10°	1635.4	1640.0	1640.0	1682.5	1674.2
12.5°	1609.6	1640.0	1647.6	1639.2	1657.5
15°	1596.7	1606.6	1608.9	1633.2	1634.7
17.5°	1582.3	1580.0	1574.7	1592.1	1623.3
20°	1545.0	1536.7	1552.6	1573.9	1586.1
22.5°	1490.4	1492.6	1511.6	1529.1	1542.8
25°	1426.5	1437.9	1466.8	1487.3	1497.2
27.5°	1378.7	1395.4	1415.2	1439.5	1459.2
30°	1340.7	1339.2	1352.9	1387.8	1410.6
32.5°	1267.0	1272.3	1286.8	1328.6	1360.5
35°	1192.6	1193.3	1207.8	1262.5	1293.6
37.5°	1106.8	1100.7	1109.0	1168.3	1188.8
40°	988.3	989.8	981.4	1023.2	1020.2
42.5°	850.0	862.2	818.9	873.6	869.8
45°	681.4	736.8	682.9	731.5	701.9
47.5°	537.8	619.8	575.0	610.7	555.3
50°	436.0	520.3	496.0	512.0	422.3
52.5°	357.8	426.1	433.7	437.5	329.7
55°	287.1	349.4	373.7	373.0	257.5
57.5°	211.9	284.1	312.2	323.6	195.2
60°	156.5	236.2	257.5	282.6	146.6
62.5°	126.1	207.4	212.7	247.6	111.7
65°	107.9	191.4	172.4	221.0	86.6
67.5°	95.7	178.5	140.5	197.5	73.7
70°	86.6	158.8	116.2	177.0	69.1
72.5°	84.3	135.2	89.6	158.0	68.4
75°	81.3	114.7	64.6	129.9	67.6
77.5°	69.9	98.0	46.3	100.3	63.0
80°	60.8	78.2	34.2	75.2	55.5
82.5°	47.1	59.2	30.4	57.0	44.8
85°	30.4	44.8	31.9	41.0	31.1
87.5°	14.4	25.1	22.8	22.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)