

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: P292637

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292637
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-L93050-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: 3270.0 lumens
Efficiency: N/A
Efficacy: 113.4 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

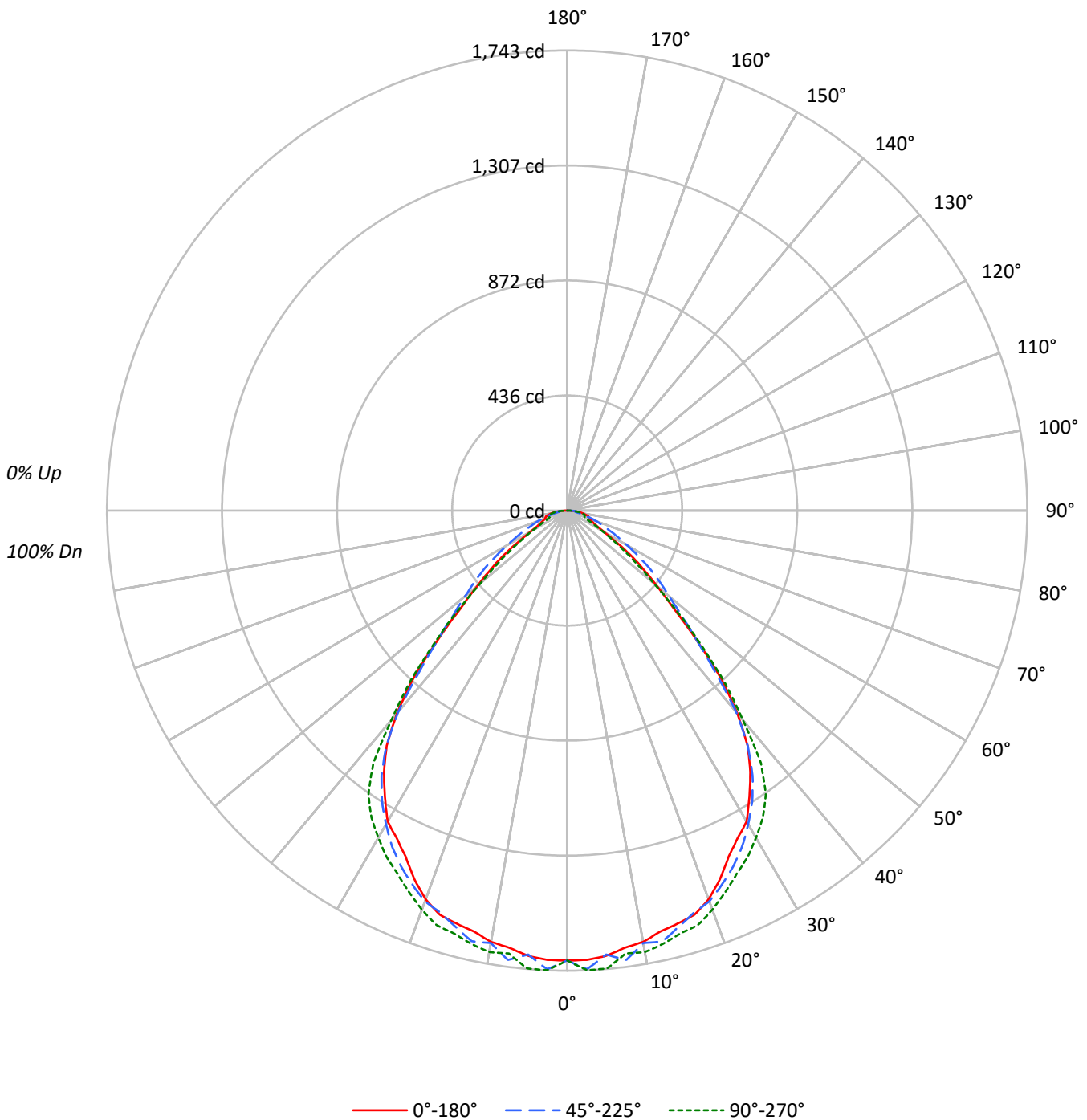
Input Watts (W): 28.83
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4586	4586	4586
5°	4574	4560	4703
10°	4533	4545	4640
15°	4512	4546	4619
20°	4488	4510	4607
25°	4296	4417	4509
30°	4225	4264	4446
35°	3974	4024	4310
40°	3521	3497	3635
45°	2630	2636	2709
50°	1851	2106	1793
55°	1366	1779	1225
60°	854	1406	800
65°	697	1114	559
70°	691	928	552
75°	857	681	713
80°	955	538	871
85°	951	1000	976



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.2	5.0
10°-20°	462.1	14.1
20°-30°	684.4	20.9
30°-40°	766.6	23.4
40°-50°	563.3	17.2
50°-60°	314.9	9.6
60°-70°	175.5	5.4
70°-80°	103.1	3.2
80°-90°	37.9	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°	1308.7	40.0
0°-40°	2075.3	63.5
0°-60°	2953.5	90.3
0°-90°	3270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1704	1704	1704	1704	1704	
5°	1693	1725	1688	1723	1741	160
15°	1620	1630	1632	1656	1658	457
25°	1447	1458	1488	1508	1519	671
35°	1210	1210	1225	1280	1312	749
45°	691	747	693	742	712	540
55°	291	354	379	378	261	260
65°	109	194	175	224	88	113
75°	82	116	66	132	69	83
85°	31	46	32	42	32	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1704.2	1704.2	1704.2	1704.2	1704.2
2.5°	1703.5	1718.9	1738.9	1741.2	1742.8
5°	1693.4	1725.0	1688.1	1722.7	1741.2
7.5°	1670.3	1689.6	1716.6	1681.9	1691.9
10°	1658.8	1663.4	1663.4	1706.5	1698.1
12.5°	1632.6	1663.4	1671.1	1662.6	1681.1
15°	1619.5	1629.5	1631.8	1656.5	1658.0
17.5°	1604.8	1602.5	1597.1	1614.9	1646.4
20°	1567.1	1558.6	1574.8	1596.4	1608.7
22.5°	1511.6	1513.9	1533.2	1550.9	1564.8
25°	1446.9	1458.5	1487.7	1508.5	1518.6
27.5°	1398.4	1415.3	1435.3	1460.0	1480.0
30°	1359.8	1358.3	1372.2	1407.6	1430.7
32.5°	1285.1	1290.5	1305.1	1347.5	1379.9
35°	1209.6	1210.4	1225.0	1280.5	1312.1
37.5°	1122.5	1116.4	1124.9	1185.0	1205.8
40°	1002.4	1003.9	995.4	1037.8	1034.7
42.5°	862.1	874.5	830.5	886.0	882.2
45°	691.1	747.3	692.6	741.9	711.9
47.5°	545.5	628.7	583.2	619.4	563.2
50°	442.2	527.8	503.1	519.3	428.4
52.5°	362.9	432.2	439.9	443.8	334.4
55°	291.2	354.4	379.1	378.3	261.2
57.5°	215.0	288.1	316.7	328.2	198.0
60°	158.7	239.6	261.2	286.6	148.7
62.5°	127.9	210.3	215.7	251.2	113.3
65°	109.4	194.2	174.9	224.2	87.8
67.5°	97.1	181.1	142.5	200.3	74.7
70°	87.8	161.0	117.9	179.5	70.1
72.5°	85.5	137.1	90.9	160.3	69.3
75°	82.4	116.3	65.5	131.7	68.6
77.5°	70.9	99.4	47.0	101.7	63.9
80°	61.6	79.4	34.7	76.3	56.2
82.5°	47.8	60.1	30.8	57.8	45.5
85°	30.8	45.5	32.4	41.6	31.6
87.5°	14.6	25.4	23.1	22.3	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)