

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: P292690

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292690
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-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: 3228.0 lumens
Efficiency: N/A
Efficacy: 112.7 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

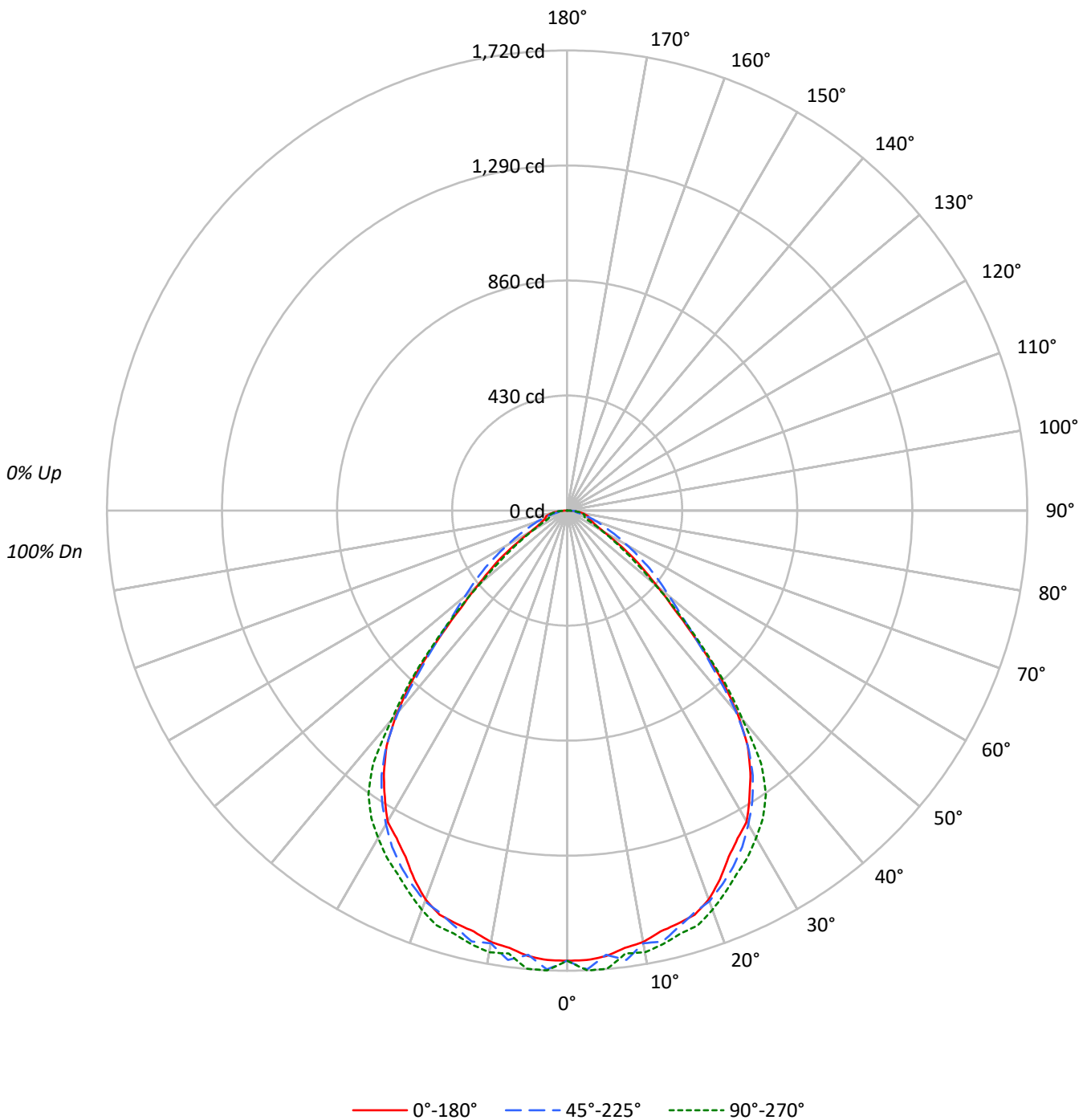
Input Watts (W): 28.644
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4527	4527	4527
5°	4516	4501	4643
10°	4474	4487	4580
15°	4454	4488	4560
20°	4430	4452	4548
25°	4241	4361	4451
30°	4171	4209	4388
35°	3923	3973	4255
40°	3476	3452	3588
45°	2596	2602	2675
50°	1828	2079	1770
55°	1349	1756	1209
60°	843	1387	790
65°	688	1099	552
70°	682	916	544
75°	846	672	704
80°	942	530	860
85°	939	985	963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.2	5.0
10°-20°	456.2	14.1
20°-30°	675.6	20.9
30°-40°	756.8	23.4
40°-50°	556.1	17.2
50°-60°	310.8	9.6
60°-70°	173.2	5.4
70°-80°	101.8	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°	1291.9	40.0
0°-40°	2048.7	63.5
0°-60°	2915.6	90.3
0°-90°	3228.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3228.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1682	1682	1682	1682	1682	
5°	1672	1703	1666	1701	1719	158
15°	1599	1609	1611	1635	1637	452
25°	1428	1440	1469	1489	1499	662
35°	1194	1195	1209	1264	1295	740
45°	682	738	684	732	703	533
55°	288	350	374	373	258	257
65°	108	192	173	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°	1682.3	1682.3	1682.3	1682.3	1682.3
2.5°	1681.6	1696.8	1716.6	1718.9	1720.4
5°	1671.7	1702.9	1666.4	1700.6	1718.9
7.5°	1648.9	1667.9	1694.5	1660.3	1670.2
10°	1637.5	1642.0	1642.0	1684.6	1676.3
12.5°	1611.6	1642.0	1649.6	1641.3	1659.5
15°	1598.7	1608.6	1610.9	1635.2	1636.7
17.5°	1584.2	1582.0	1576.6	1594.1	1625.3
20°	1547.0	1538.6	1554.6	1575.9	1588.0
22.5°	1492.2	1494.5	1513.5	1531.0	1544.7
25°	1428.3	1439.7	1468.6	1489.2	1499.1
27.5°	1380.4	1397.1	1416.9	1441.2	1461.0
30°	1342.4	1340.9	1354.5	1389.5	1412.3
32.5°	1268.6	1273.9	1288.4	1330.2	1362.2
35°	1194.1	1194.8	1209.3	1264.0	1295.2
37.5°	1108.1	1102.0	1110.4	1169.7	1190.3
40°	989.5	991.0	982.6	1024.5	1021.4
42.5°	851.1	863.2	819.9	874.6	870.8
45°	682.2	737.7	683.7	732.4	702.8
47.5°	538.5	620.6	575.7	611.5	556.0
50°	436.6	521.0	496.6	512.6	422.9
52.5°	358.2	426.7	434.3	438.1	330.1
55°	287.5	349.9	374.2	373.4	257.8
57.5°	212.2	284.4	312.6	324.0	195.5
60°	156.7	236.5	257.8	282.9	146.8
62.5°	126.3	207.6	213.0	247.9	111.8
65°	108.0	191.7	172.6	221.3	86.7
67.5°	95.8	178.7	140.7	197.7	73.8
70°	86.7	159.0	116.4	177.2	69.2
72.5°	84.4	135.4	89.7	158.2	68.4
75°	81.4	114.8	64.6	130.1	67.7
77.5°	70.0	98.1	46.4	100.4	63.1
80°	60.8	78.3	34.2	75.3	55.5
82.5°	47.2	59.3	30.4	57.0	44.9
85°	30.4	44.9	31.9	41.1	31.2
87.5°	14.5	25.1	22.8	22.1	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)