

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: P291460

Luminaire Tested: **14GR-LD5-36-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291460
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-36-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3021.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

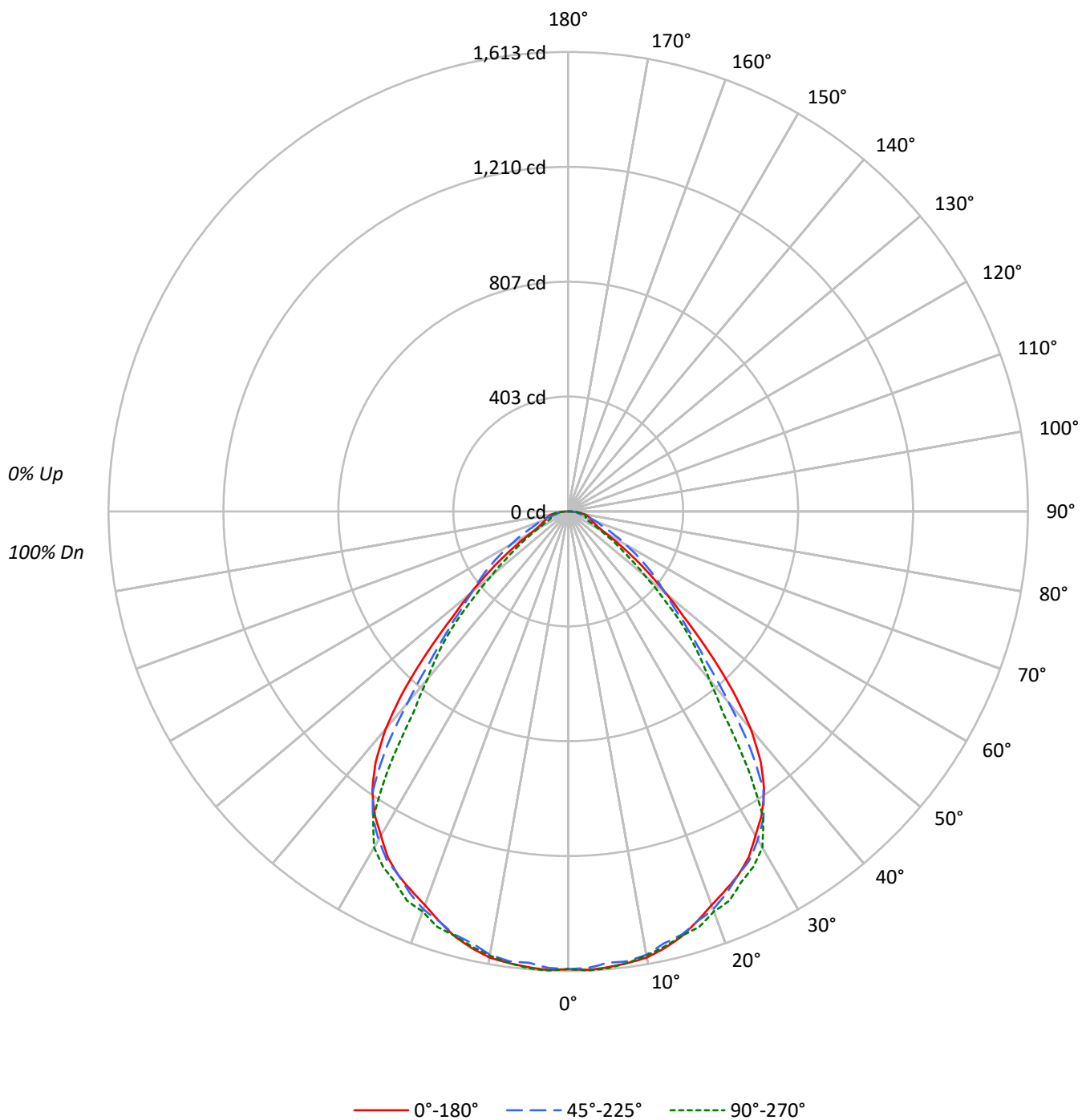
Input Watts (W): 29.853
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	104	100	108	105	102	99	101	98	96		97	95	93		93
2	103	96	90	86	100	94	89	85	91	87	83		88	84	81		85
3	95	87	80	74	93	85	79	74	82	77	73		80	75	71		77
4	89	79	71	65	87	77	70	65	75	69	64		73	68	63		71
5	83	71	64	58	81	70	63	58	68	62	57		67	61	57		65
6	77	65	58	52	75	64	57	52	63	56	51		61	55	51		60
7	72	60	52	47	70	59	52	47	58	51	46		56	51	46		55
8	67	55	48	43	66	55	47	42	53	47	42		52	46	42		51
9	63	51	44	39	62	51	44	39	50	43	39		49	43	38		48
10	60	48	40	36	58	47	40	36	46	40	35		45	39	35		44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4323	4323	4323
5°	4338	4296	4347
10°	4344	4318	4325
15°	4300	4285	4294
20°	4210	4256	4279
25°	4185	4183	4263
30°	4083	4132	4233
35°	3937	3921	3603
40°	3496	3085	2701
45°	2653	2308	2184
50°	1882	1847	1482
55°	1288	1577	1019
60°	797	1258	681
65°	656	968	493
70°	653	843	506
75°	784	604	676
80°	900	558	846
85°	855	982	960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.4	5.0
10°-20°	435.0	14.4
20°-30°	654.2	21.7
30°-40°	713.2	23.6
40°-50°	499.4	16.5
50°-60°	282.7	9.4
60°-70°	154.7	5.1
70°-80°	93.8	3.1
80°-90°	35.5	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°	1241.7	41.1
0°-40°	1954.9	64.7
0°-60°	2737.0	90.6
0°-90°	3021.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1606	1603	1590	1609	1609	153
15°	1544	1539	1538	1560	1541	434
25°	1409	1412	1409	1441	1436	647
35°	1198	1193	1194	1133	1097	738
45°	697	728	606	599	574	541
55°	274	328	336	333	217	251
65°	103	169	152	192	78	106
75°	75	109	58	114	65	78
85°	28	45	32	39	31	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1606.5	1606.5	1606.5	1606.5	1606.5
2.5°	1610.6	1608.5	1603.7	1613.4	1612.7
5°	1605.8	1603.0	1590.5	1609.2	1609.2
7.5°	1598.8	1591.9	1592.6	1603.0	1598.2
10°	1589.9	1578.1	1580.2	1582.9	1582.9
12.5°	1569.1	1558.0	1552.5	1561.5	1564.3
15°	1543.5	1539.4	1538.0	1560.1	1541.4
17.5°	1507.6	1516.5	1508.3	1526.2	1529.0
20°	1470.2	1487.5	1486.1	1498.6	1494.4
22.5°	1439.8	1450.9	1450.9	1466.1	1478.5
25°	1409.4	1412.1	1408.7	1441.2	1435.6
27.5°	1369.9	1367.9	1378.9	1395.5	1406.6
30°	1313.9	1314.6	1329.8	1352.0	1362.3
32.5°	1262.8	1256.5	1275.2	1284.9	1273.8
35°	1198.4	1192.9	1193.6	1132.7	1096.8
37.5°	1110.6	1115.5	1051.8	940.5	893.5
40°	995.1	1004.8	878.3	795.3	769.0
42.5°	855.4	858.2	719.9	692.9	675.6
45°	697.1	727.5	606.5	598.9	574.0
47.5°	552.5	609.2	508.3	513.1	453.7
50°	449.5	506.2	441.2	443.3	354.1
52.5°	355.5	410.8	389.3	383.1	278.0
55°	274.5	328.5	336.1	333.3	217.1
57.5°	201.9	260.0	282.1	292.5	167.4
60°	148.0	212.3	233.7	254.5	126.6
62.5°	117.6	183.9	191.6	222.0	98.2
65°	103.0	169.4	152.1	192.2	77.5
67.5°	92.0	161.1	123.8	170.1	67.8
70°	83.0	145.2	107.2	152.1	64.3
72.5°	83.0	127.2	84.4	134.9	65.0
75°	75.4	108.6	58.1	114.1	65.0
77.5°	67.1	92.7	43.6	92.7	60.9
80°	58.1	72.6	36.0	71.2	54.6
82.5°	42.9	54.6	31.1	53.2	44.3
85°	27.7	45.0	31.8	38.7	31.1
87.5°	13.1	22.8	20.1	19.4	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)