

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: P291512

Luminaire Tested: **14GR-LD5-36-A19/156-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291512
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-L92765-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: 3041.0 lumens
Efficiency: N/A
Efficacy: 103.5 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

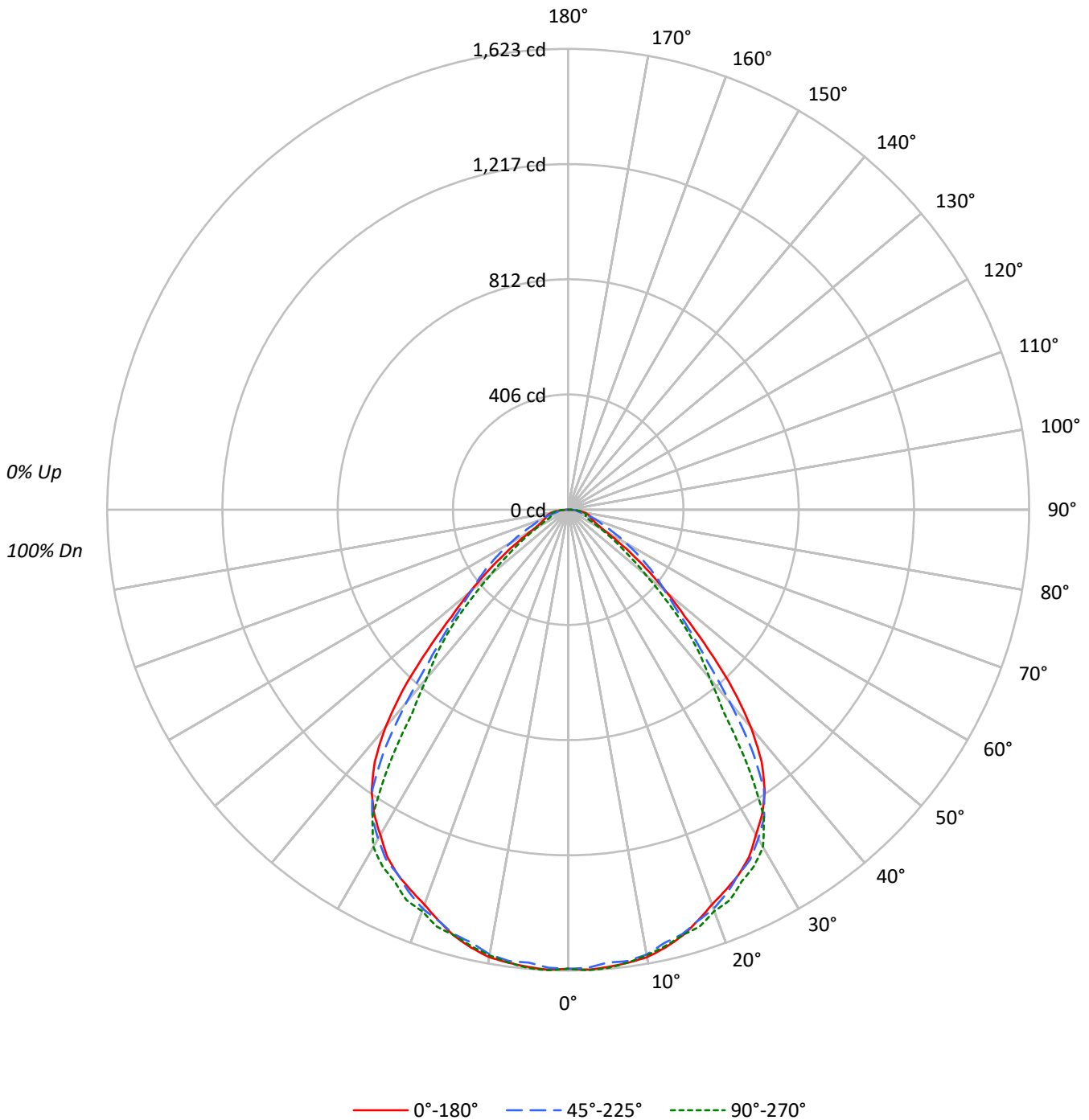
Input Watts (W): 29.388
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54					54			
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49					49			
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44					44			
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37					37			
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4352	4352	4352
5°	4366	4325	4376
10°	4373	4346	4354
15°	4328	4313	4323
20°	4238	4284	4308
25°	4212	4210	4291
30°	4110	4159	4261
35°	3963	3947	3627
40°	3519	3106	2719
45°	2670	2323	2199
50°	1894	1859	1492
55°	1297	1587	1026
60°	802	1266	686
65°	660	975	497
70°	657	849	509
75°	789	608	680
80°	907	561	852
85°	858	988	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	5.0
10°-20°	437.9	14.4
20°-30°	658.6	21.7
30°-40°	717.9	23.6
40°-50°	502.7	16.5
50°-60°	284.6	9.4
60°-70°	155.7	5.1
70°-80°	94.4	3.1
80°-90°	35.8	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°	1249.9	41.1
0°-40°	1967.9	64.7
0°-60°	2755.1	90.6
0°-90°	3041.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3041.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1617	1617	1617	1617	1617	
5°	1616	1614	1601	1620	1620	154
15°	1554	1550	1548	1570	1552	437
25°	1419	1422	1418	1451	1445	652
35°	1206	1201	1202	1140	1104	743
45°	702	732	610	603	578	545
55°	276	331	338	336	219	253
65°	104	170	153	194	78	107
75°	76	109	58	115	65	79
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°	1617.1	1617.1	1617.1	1617.1	1617.1
2.5°	1621.3	1619.2	1614.3	1624.0	1623.4
5°	1616.4	1613.6	1601.1	1619.9	1619.9
7.5°	1609.4	1602.5	1603.2	1613.6	1608.7
10°	1600.4	1588.5	1590.6	1593.4	1593.4
12.5°	1579.5	1568.4	1562.8	1571.8	1574.6
15°	1553.7	1549.6	1548.2	1570.4	1551.7
17.5°	1517.5	1526.6	1518.2	1536.3	1539.1
20°	1479.9	1497.4	1496.0	1508.5	1504.3
22.5°	1449.3	1460.5	1460.5	1475.8	1488.3
25°	1418.7	1421.5	1418.0	1450.7	1445.1
27.5°	1379.0	1376.9	1388.1	1404.8	1415.9
30°	1322.6	1323.3	1338.6	1360.9	1371.4
32.5°	1271.1	1264.8	1283.6	1293.4	1282.3
35°	1206.4	1200.8	1201.5	1140.2	1104.0
37.5°	1118.0	1122.8	1058.8	946.7	899.4
40°	1001.7	1011.5	884.1	800.5	774.1
42.5°	861.1	863.9	724.7	697.5	680.1
45°	701.7	732.3	610.5	602.8	577.8
47.5°	556.2	613.3	511.6	516.5	456.7
50°	452.5	509.6	444.1	446.2	356.4
52.5°	357.8	413.5	391.9	385.7	279.8
55°	276.4	330.7	338.3	335.5	218.6
57.5°	203.3	261.7	284.0	294.5	168.5
60°	149.0	213.7	235.3	256.2	127.4
62.5°	118.3	185.2	192.8	223.5	98.8
65°	103.7	170.5	153.1	193.5	78.0
67.5°	92.6	162.2	124.6	171.2	68.2
70°	83.5	146.2	107.9	153.1	64.7
72.5°	83.5	128.1	84.9	135.7	65.4
75°	75.9	109.3	58.5	114.9	65.4
77.5°	67.5	93.3	43.9	93.3	61.3
80°	58.5	73.1	36.2	71.7	55.0
82.5°	43.2	55.0	31.3	53.6	44.6
85°	27.8	45.2	32.0	39.0	31.3
87.5°	13.2	23.0	20.2	19.5	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)