

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: P291456

Luminaire Tested: **14GR-LD5-32-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291456
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-LD5-32-A19/156-UNV-L93050-W2A1-U-4000K
Description: GRLED 1x4 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: 2919.0 lumens
Efficiency: N/A
Efficacy: 110.9 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

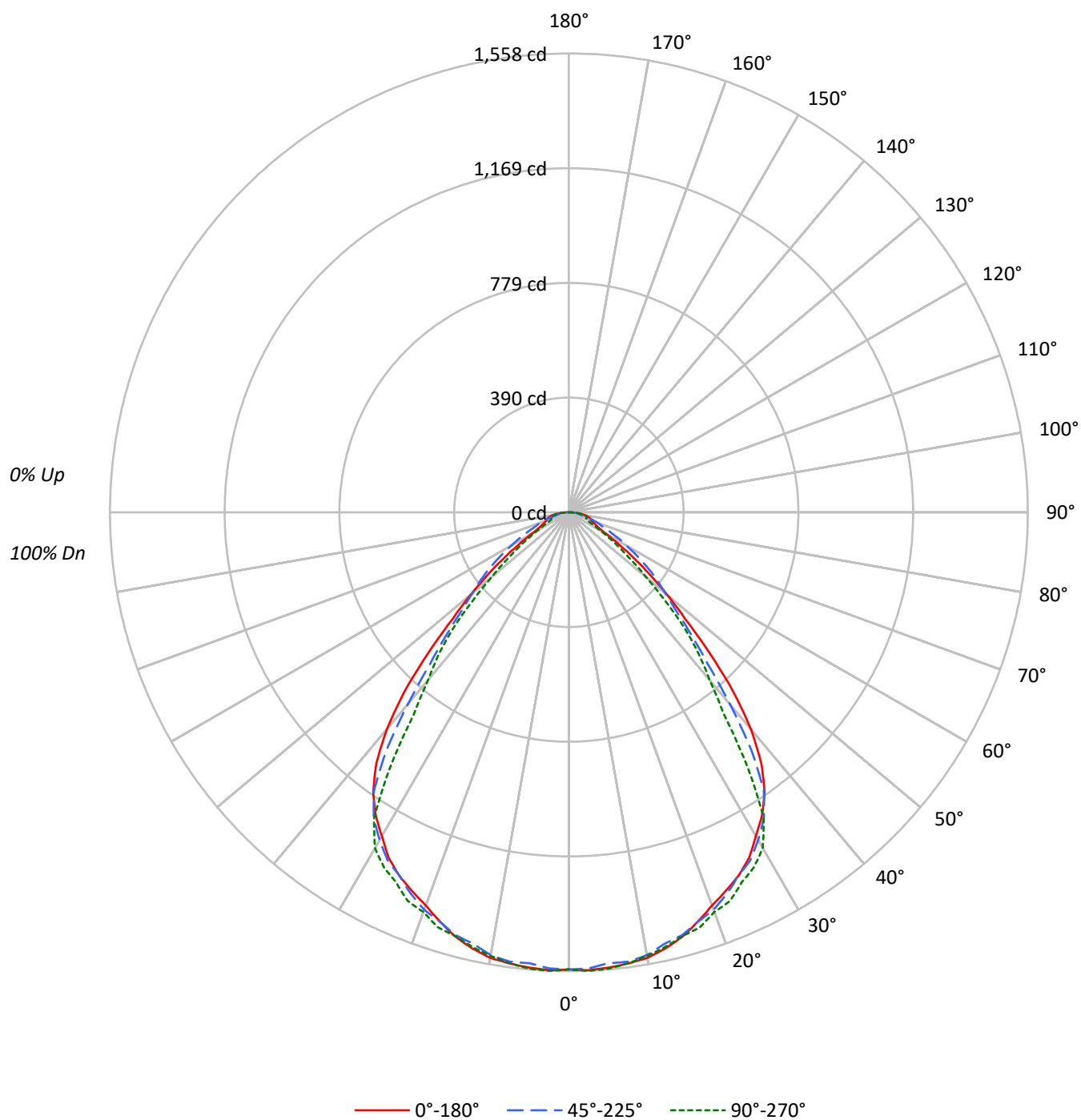
Input Watts (W): 26.319
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77		
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68		
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61		
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54		
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49		
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44		
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40		
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37		
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4177	4177	4177
5°	4191	4151	4200
10°	4198	4172	4179
15°	4155	4140	4149
20°	4068	4112	4135
25°	4043	4041	4119
30°	3945	3993	4090
35°	3804	3789	3482
40°	3378	2981	2610
45°	2563	2230	2111
50°	1818	1785	1432
55°	1245	1523	984
60°	770	1215	658
65°	634	936	476
70°	631	815	489
75°	757	583	653
80°	869	538	818
85°	824	948	929



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.3	5.0
10°-20°	420.4	14.4
20°-30°	632.2	21.7
30°-40°	689.1	23.6
40°-50°	482.5	16.5
50°-60°	273.1	9.4
60°-70°	149.5	5.1
70°-80°	90.6	3.1
80°-90°	34.3	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°	1199.8	41.1
0°-40°	1888.9	64.7
0°-60°	2644.6	90.6
0°-90°	2919.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2919.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1552	1552	1552	1552	1552	
5°	1552	1549	1537	1555	1555	148
15°	1491	1487	1486	1507	1489	419
25°	1362	1364	1361	1392	1387	625
35°	1158	1153	1153	1094	1060	714
45°	674	703	586	579	555	523
55°	265	317	325	322	210	243
65°	100	164	147	186	75	102
75°	73	105	56	110	63	76
85°	27	43	31	37	30	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1552.2	1552.2	1552.2	1552.2	1552.2
2.5°	1556.2	1554.2	1549.5	1558.9	1558.2
5°	1551.5	1548.9	1536.8	1554.9	1554.9
7.5°	1544.9	1538.2	1538.8	1548.9	1544.2
10°	1536.2	1524.8	1526.8	1529.5	1529.5
12.5°	1516.1	1505.4	1500.1	1508.8	1511.5
15°	1491.4	1487.4	1486.1	1507.4	1489.4
17.5°	1456.7	1465.3	1457.3	1474.7	1477.4
20°	1420.6	1437.3	1435.9	1448.0	1444.0
22.5°	1391.2	1401.9	1401.9	1416.6	1428.6
25°	1361.8	1364.4	1361.1	1392.5	1387.2
27.5°	1323.7	1321.7	1332.4	1348.4	1359.1
30°	1269.6	1270.2	1284.9	1306.3	1316.3
32.5°	1220.1	1214.1	1232.1	1241.5	1230.8
35°	1158.0	1152.6	1153.3	1094.5	1059.8
37.5°	1073.1	1077.8	1016.3	908.7	863.3
40°	961.5	970.9	848.6	768.4	743.0
42.5°	826.6	829.2	695.6	669.5	652.8
45°	673.5	702.9	586.0	578.7	554.6
47.5°	533.9	588.7	491.1	495.8	438.3
50°	434.3	489.1	426.3	428.3	342.1
52.5°	343.5	396.9	376.2	370.2	268.6
55°	265.3	317.4	324.7	322.1	209.8
57.5°	195.1	251.2	272.6	282.6	161.7
60°	143.0	205.1	225.8	245.9	122.3
62.5°	113.6	177.7	185.1	214.5	94.9
65°	99.6	163.7	147.0	185.8	74.8
67.5°	88.9	155.7	119.6	164.4	65.5
70°	80.2	140.3	103.6	147.0	62.1
72.5°	80.2	122.9	81.5	130.3	62.8
75°	72.8	104.9	56.1	110.3	62.8
77.5°	64.8	89.5	42.1	89.5	58.8
80°	56.1	70.2	34.7	68.8	52.8
82.5°	41.4	52.8	30.1	51.5	42.8
85°	26.7	43.4	30.7	37.4	30.1
87.5°	12.7	22.1	19.4	18.7	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)