

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: P291353

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291353
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-LD5-28-A19/156-UNV-L83050-W2A1-U-4000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2941.0 lumens
Efficiency: N/A
Efficacy: 129.6 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

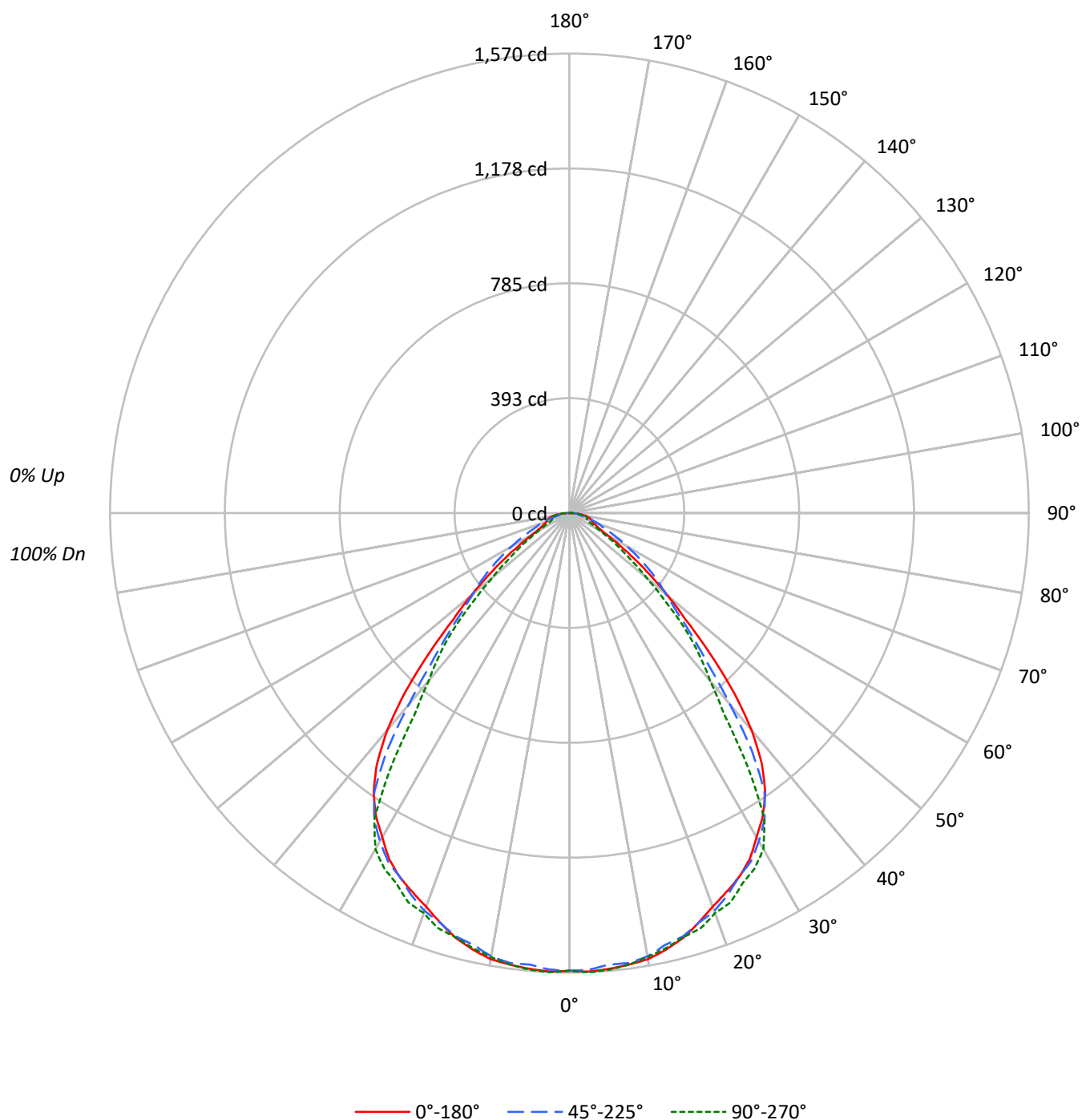
Input Watts (W): 22.692
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4208	4208	4208
5°	4223	4183	4232
10°	4229	4203	4211
15°	4186	4171	4181
20°	4099	4143	4166
25°	4074	4072	4150
30°	3975	4023	4121
35°	3833	3817	3507
40°	3403	3003	2630
45°	2582	2247	2127
50°	1832	1798	1443
55°	1254	1535	992
60°	776	1225	663
65°	639	943	480
70°	636	821	493
75°	763	588	658
80°	877	542	824
85°	831	957	936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	5.0
10°-20°	423.5	14.4
20°-30°	636.9	21.7
30°-40°	694.3	23.6
40°-50°	486.2	16.5
50°-60°	275.2	9.4
60°-70°	150.6	5.1
70°-80°	91.3	3.1
80°-90°	34.6	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°	1208.8	41.1
0°-40°	1903.2	64.7
0°-60°	2664.5	90.6
0°-90°	2941.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2941.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1564	1564	1564	1564	1564	
5°	1563	1560	1548	1567	1567	149
15°	1503	1499	1497	1519	1501	423
25°	1372	1375	1371	1403	1398	630
35°	1167	1161	1162	1103	1068	719
45°	679	708	590	583	559	527
55°	267	320	327	324	211	244
65°	100	165	148	187	75	103
75°	73	106	57	111	63	76
85°	27	44	31	38	30	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1563.9	1563.9	1563.9	1563.9	1563.9
2.5°	1567.9	1565.9	1561.2	1570.6	1570.0
5°	1563.2	1560.5	1548.4	1566.6	1566.6
7.5°	1556.5	1549.8	1550.4	1560.5	1555.8
10°	1547.8	1536.3	1538.3	1541.0	1541.0
12.5°	1527.6	1516.8	1511.4	1520.1	1522.8
15°	1502.6	1498.6	1497.3	1518.8	1500.6
17.5°	1467.6	1476.4	1468.3	1485.8	1488.5
20°	1431.3	1448.1	1446.8	1458.9	1454.8
22.5°	1401.7	1412.4	1412.4	1427.2	1439.4
25°	1372.0	1374.7	1371.4	1403.0	1397.6
27.5°	1333.7	1331.6	1342.4	1358.6	1369.3
30°	1279.1	1279.8	1294.6	1316.2	1326.3
32.5°	1229.3	1223.3	1241.4	1250.9	1240.1
35°	1166.7	1161.3	1162.0	1102.7	1067.7
37.5°	1081.2	1085.9	1024.0	915.6	869.8
40°	968.8	978.2	855.0	774.2	748.6
42.5°	832.8	835.5	700.8	674.6	657.7
45°	678.6	708.2	590.4	583.0	558.8
47.5°	537.9	593.1	494.8	499.5	441.6
50°	437.6	492.8	429.5	431.5	344.7
52.5°	346.0	399.9	379.0	373.0	270.6
55°	267.3	319.8	327.2	324.5	211.4
57.5°	196.6	253.1	274.7	284.8	162.9
60°	144.1	206.7	227.6	247.7	123.2
62.5°	114.4	179.1	186.5	216.1	95.6
65°	100.3	164.9	148.1	187.2	75.4
67.5°	89.5	156.9	120.5	165.6	66.0
70°	80.8	141.4	104.4	148.1	62.6
72.5°	80.8	123.9	82.1	131.3	63.3
75°	73.4	105.7	56.6	111.1	63.3
77.5°	65.3	90.2	42.4	90.2	59.2
80°	56.6	70.7	35.0	69.3	53.2
82.5°	41.7	53.2	30.3	51.8	43.1
85°	26.9	43.8	31.0	37.7	30.3
87.5°	12.8	22.2	19.5	18.9	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)