

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: P291451

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291451
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-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: 2572.0 lumens
Efficiency: N/A
Efficacy: 112.9 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

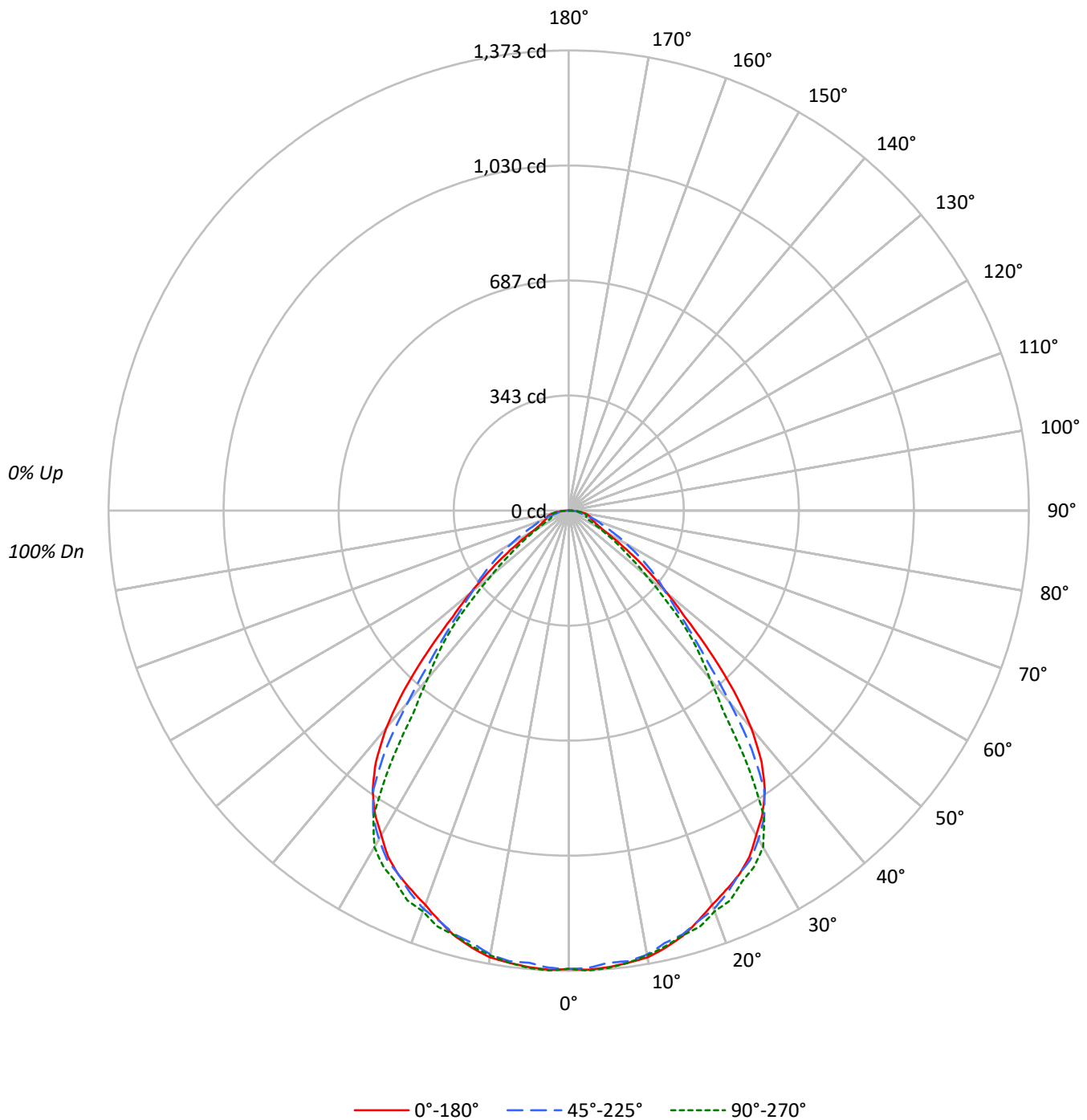
Input Watts (W): 22.785
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3680	3680	3680
5°	3693	3658	3701
10°	3699	3676	3683
15°	3661	3648	3656
20°	3584	3623	3643
25°	3563	3561	3629
30°	3476	3518	3604
35°	3352	3338	3068
40°	2976	2627	2300
45°	2259	1965	1860
50°	1602	1572	1262
55°	1096	1342	867
60°	678	1071	580
65°	558	825	420
70°	556	718	431
75°	667	515	575
80°	767	474	721
85°	729	837	818



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.8	5.0
10°-20°	370.4	14.4
20°-30°	557.0	21.7
30°-40°	607.2	23.6
40°-50°	425.2	16.5
50°-60°	240.7	9.4
60°-70°	131.7	5.1
70°-80°	79.8	3.1
80°-90°	30.3	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°	1057.2	41.1
0°-40°	1664.4	64.7
0°-60°	2330.2	90.6
0°-90°	2572.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2572.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1368	1368	1368	1368	1368	
5°	1367	1365	1354	1370	1370	130
15°	1314	1311	1309	1328	1312	370
25°	1200	1202	1199	1227	1222	551
35°	1020	1016	1016	964	934	629
45°	594	619	516	510	489	461
55°	234	280	286	284	185	214
65°	88	144	130	164	66	90
75°	64	92	50	97	55	67
85°	24	38	27	33	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1367.7	1367.7	1367.7	1367.7	1367.7
2.5°	1371.2	1369.5	1365.3	1373.6	1373.0
5°	1367.1	1364.7	1354.1	1370.0	1370.0
7.5°	1361.2	1355.3	1355.9	1364.7	1360.6
10°	1353.6	1343.6	1345.3	1347.7	1347.7
12.5°	1335.9	1326.5	1321.8	1329.4	1331.8
15°	1314.1	1310.6	1309.4	1328.2	1312.3
17.5°	1283.5	1291.2	1284.1	1299.4	1301.7
20°	1251.7	1266.4	1265.2	1275.8	1272.3
22.5°	1225.8	1235.2	1235.2	1248.2	1258.8
25°	1199.9	1202.2	1199.3	1227.0	1222.3
27.5°	1166.3	1164.6	1174.0	1188.1	1197.5
30°	1118.6	1119.2	1132.2	1151.0	1159.9
32.5°	1075.1	1069.8	1085.7	1093.9	1084.5
35°	1020.3	1015.6	1016.2	964.4	933.8
37.5°	945.5	949.7	895.5	800.7	760.7
40°	847.2	855.5	747.7	677.1	654.7
42.5°	728.3	730.7	612.9	589.9	575.2
45°	593.5	619.4	516.3	509.9	488.7
47.5°	470.4	518.7	432.7	436.9	386.2
50°	382.7	431.0	375.6	377.4	301.4
52.5°	302.6	349.7	331.5	326.2	236.7
55°	233.7	279.7	286.1	283.8	184.9
57.5°	171.9	221.4	240.2	249.0	142.5
60°	126.0	180.7	199.0	216.7	107.7
62.5°	100.1	156.6	163.1	189.0	83.6
65°	87.7	144.2	129.5	163.7	65.9
67.5°	78.3	137.2	105.4	144.8	57.7
70°	70.7	123.6	91.3	129.5	54.8
72.5°	70.7	108.3	71.8	114.8	55.3
75°	64.2	92.4	49.5	97.1	55.3
77.5°	57.1	78.9	37.1	78.9	51.8
80°	49.5	61.8	30.6	60.6	46.5
82.5°	36.5	46.5	26.5	45.3	37.7
85°	23.6	38.3	27.1	33.0	26.5
87.5°	11.2	19.4	17.1	16.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)