

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: P291494

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291494
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-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: 2397.0 lumens
Efficiency: N/A
Efficacy: 107.4 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

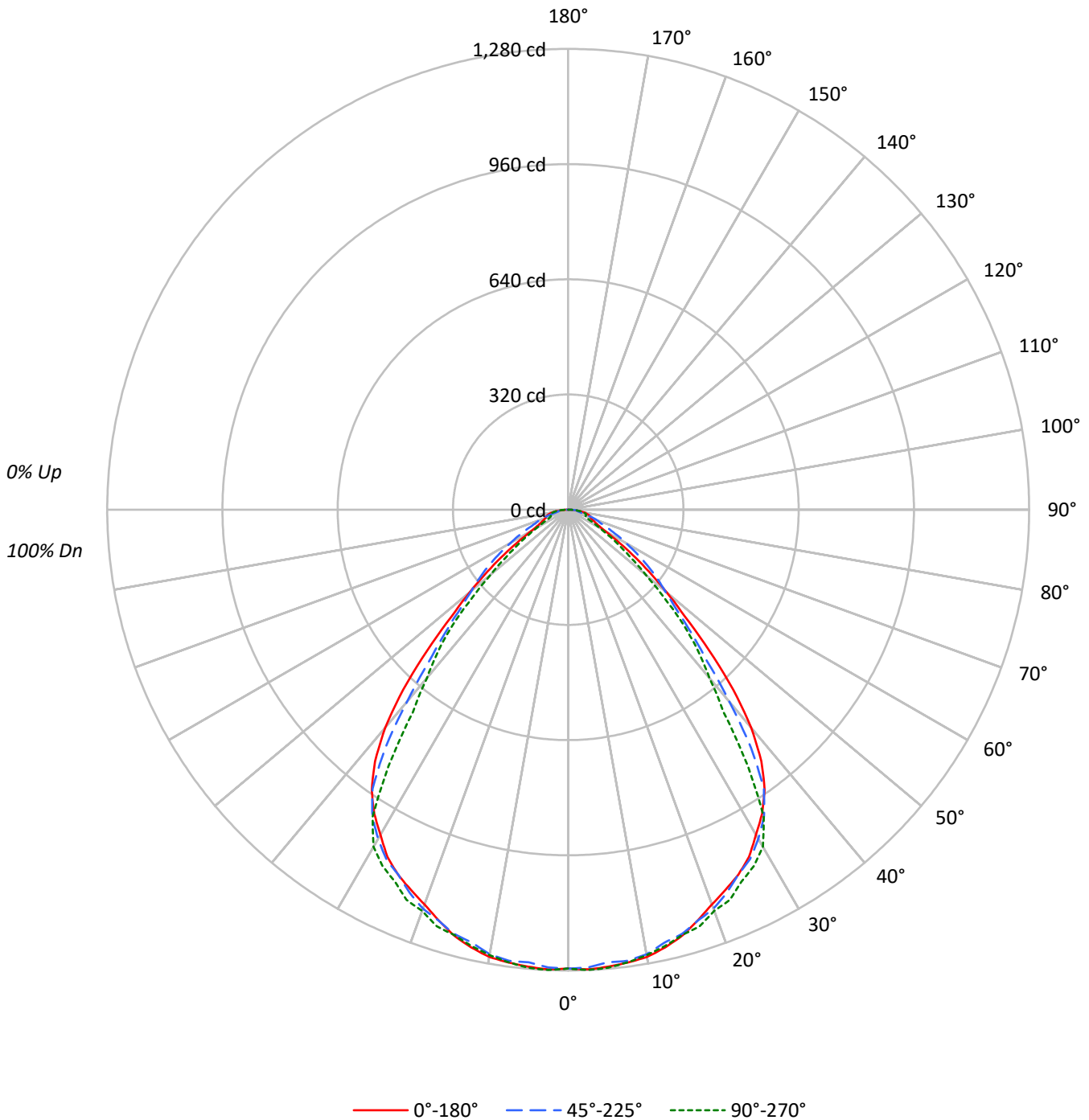
Input Watts (W): 22.32
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
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°	3430	3430	3430
5°	3442	3409	3449
10°	3447	3426	3432
15°	3412	3400	3407
20°	3340	3377	3395
25°	3320	3319	3382
30°	3239	3279	3359
35°	3124	3111	2859
40°	2774	2448	2144
45°	2105	1831	1733
50°	1493	1466	1176
55°	1022	1251	808
60°	632	998	540
65°	521	769	392
70°	518	669	401
75°	622	479	536
80°	714	442	671
85°	676	778	763



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.9	5.0
10°-20°	345.2	14.4
20°-30°	519.1	21.7
30°-40°	565.9	23.6
40°-50°	396.2	16.5
50°-60°	224.3	9.4
60°-70°	122.7	5.1
70°-80°	74.4	3.1
80°-90°	28.2	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°	985.2	41.1
0°-40°	1551.1	64.7
0°-60°	2171.7	90.6
0°-90°	2397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1275	1275	1275	1275	1275	
5°	1274	1272	1262	1277	1277	121
15°	1225	1221	1220	1238	1223	344
25°	1118	1120	1118	1144	1139	514
35°	951	946	947	899	870	586
45°	553	577	481	475	455	430
55°	218	261	267	264	172	199
65°	82	134	121	152	62	84
75°	60	86	46	90	52	62
85°	22	36	25	31	25	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1274.6	1274.6	1274.6	1274.6	1274.6
2.5°	1277.9	1276.3	1272.4	1280.1	1279.6
5°	1274.1	1271.9	1262.0	1276.8	1276.8
7.5°	1268.6	1263.1	1263.7	1271.9	1268.0
10°	1261.5	1252.1	1253.8	1256.0	1256.0
12.5°	1245.0	1236.2	1231.8	1239.0	1241.2
15°	1224.7	1221.4	1220.3	1237.9	1223.1
17.5°	1196.2	1203.3	1196.7	1211.0	1213.2
20°	1166.5	1180.3	1179.2	1189.0	1185.7
22.5°	1142.4	1151.2	1151.2	1163.2	1173.1
25°	1118.3	1120.4	1117.7	1143.5	1139.1
27.5°	1087.0	1085.3	1094.1	1107.3	1116.1
30°	1042.5	1043.1	1055.2	1072.7	1080.9
32.5°	1001.9	997.0	1011.8	1019.5	1010.7
35°	950.9	946.5	947.1	898.8	870.2
37.5°	881.2	885.1	834.6	746.2	708.9
40°	789.6	797.3	696.8	631.0	610.2
42.5°	678.7	680.9	571.2	549.8	536.1
45°	553.1	577.2	481.2	475.2	455.4
47.5°	438.4	483.4	403.3	407.1	359.9
50°	356.7	401.6	350.1	351.7	280.9
52.5°	282.0	325.9	308.9	304.0	220.6
55°	217.8	260.6	266.7	264.5	172.3
57.5°	160.2	206.3	223.9	232.1	132.8
60°	117.4	168.5	185.5	201.9	100.4
62.5°	93.3	146.0	152.0	176.1	77.9
65°	81.8	134.4	120.7	152.5	61.5
67.5°	73.0	127.8	98.2	135.0	53.8
70°	65.8	115.2	85.0	120.7	51.0
72.5°	65.8	101.0	66.9	107.0	51.6
75°	59.8	86.1	46.1	90.5	51.6
77.5°	53.2	73.5	34.6	73.5	48.3
80°	46.1	57.6	28.5	56.5	43.3
82.5°	34.0	43.3	24.7	42.2	35.1
85°	21.9	35.7	25.2	30.7	24.7
87.5°	10.4	18.1	15.9	15.4	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)