

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: P290668

Luminaire Tested: **14GR-LD5-28-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P290668
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-7)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-F1-UNV-L93050-W2A1-U-4500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2691.0 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.15 / 1.23
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

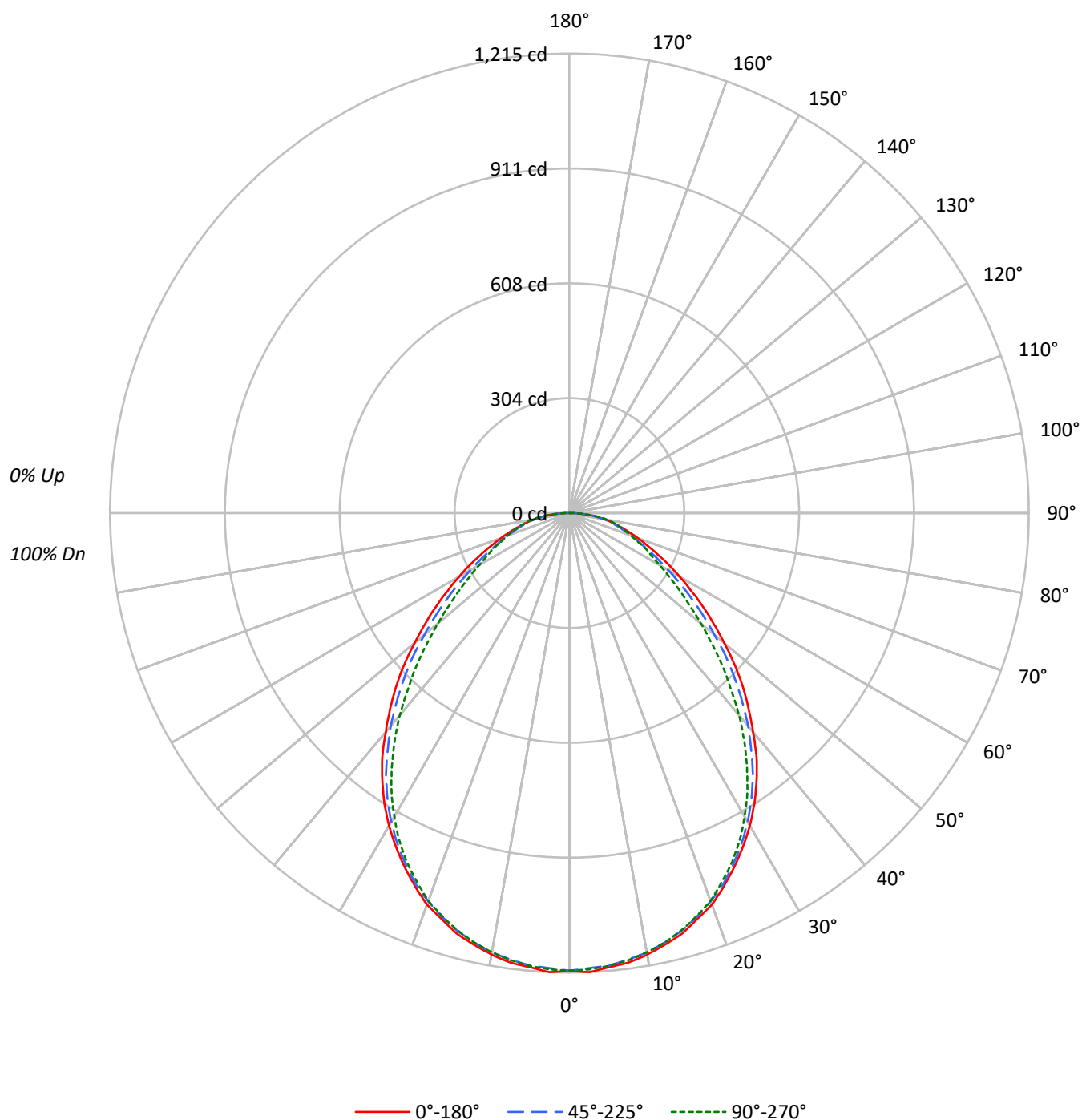
Input Watts (W): 23.157
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	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
1	110	105	101	98	107	103	99	96		99	96	93		95	92	90		91	89	87
2	101	93	87	81	98	91	85	80		88	83	78		84	80	77		81	78	75
3	92	83	75	69	90	81	74	68		78	72	67		75	70	66		73	69	65
4	85	74	66	59	83	73	65	59		70	64	58		68	62	57		66	61	57
5	79	67	58	52	77	66	58	52		64	57	51		62	55	51		60	54	50
6	73	61	52	46	71	60	52	46		58	51	45		56	50	45		55	49	45
7	68	55	47	41	66	54	47	41		53	46	41		52	45	40		50	44	40
8	64	51	43	37	62	50	42	37		49	42	37		47	41	36		46	41	36
9	60	47	39	34	58	46	39	33		45	38	33		44	38	33		43	37	33
10	56	43	36	31	55	43	35	31		42	35	30		41	35	30		40	34	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3257	3257	3257
5°	3256	3244	3246
10°	3239	3224	3223
15°	3207	3188	3183
20°	3155	3128	3125
25°	3064	3044	3022
30°	2965	2929	2879
35°	2835	2780	2689
40°	2654	2581	2453
45°	2465	2355	2183
50°	2236	2097	1901
55°	2023	1852	1661
60°	1816	1623	1481
65°	1630	1449	1418
70°	1504	1349	1364
75°	1437	1354	1431
80°	1454	1443	1557
85°	1504	1485	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.2	4.2
10°-20°	323.0	12.0
20°-30°	471.7	17.5
30°-40°	525.6	19.5
40°-50°	473.6	17.6
50°-60°	354.0	13.2
60°-70°	233.5	8.7
70°-80°	142.5	5.3
80°-90°	52.9	2.0
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°	908.9	33.8
0°-40°	1434.5	53.3
0°-60°	2262.1	84.1
0°-90°	2691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1210	1210	1210	1210	1210	
5°	1205	1204	1201	1207	1202	115
15°	1151	1147	1144	1151	1142	324
25°	1032	1028	1025	1027	1018	475
35°	863	856	846	832	818	538
45°	648	641	619	590	574	498
55°	431	424	395	362	354	386
65°	256	248	228	218	223	257
75°	138	136	130	134	138	148
85°	49	47	48	53	54	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1210.2	1210.2	1210.2	1210.2	1210.2
2.5°	1215.1	1209.6	1204.7	1212.1	1207.7
5°	1205.3	1204.0	1201.0	1207.1	1201.6
7.5°	1199.1	1194.8	1191.1	1198.5	1192.3
10°	1185.5	1183.1	1180.0	1186.2	1179.4
12.5°	1168.9	1166.4	1163.3	1170.7	1163.3
15°	1151.0	1146.7	1144.2	1151.0	1142.4
17.5°	1125.1	1123.2	1119.5	1126.3	1117.7
20°	1101.6	1094.9	1092.4	1097.3	1091.2
22.5°	1067.7	1062.8	1062.2	1065.3	1054.8
25°	1031.9	1028.2	1025.2	1027.0	1017.8
27.5°	994.3	989.4	985.7	985.1	975.2
30°	954.2	948.1	942.5	937.6	926.5
32.5°	910.4	903.0	895.6	887.6	875.9
35°	862.9	855.5	846.3	831.5	818.5
37.5°	813.0	804.3	789.5	772.3	759.3
40°	755.6	751.3	734.6	712.4	698.2
42.5°	701.9	697.0	676.0	651.4	632.2
45°	647.7	640.9	618.7	590.3	573.6
47.5°	592.2	585.4	560.7	525.5	510.7
50°	534.2	530.5	500.9	468.8	454.0
52.5°	481.1	476.8	446.6	414.5	400.9
55°	431.2	424.4	394.8	362.1	354.1
57.5°	381.2	373.8	346.0	318.3	312.7
60°	337.4	328.2	301.6	280.0	275.1
62.5°	296.1	285.6	263.4	246.7	244.3
65°	256.0	248.0	227.6	218.4	222.7
67.5°	221.4	213.4	198.6	194.9	193.7
70°	191.2	183.8	171.5	172.7	173.3
72.5°	163.5	159.1	149.9	153.0	155.4
75°	138.2	135.7	130.2	134.5	137.6
77.5°	115.3	113.5	111.0	114.7	119.7
80°	93.8	92.5	93.1	95.6	100.5
82.5°	72.2	69.7	71.6	76.5	79.6
85°	48.7	46.9	48.1	53.0	53.7
87.5°	22.8	22.8	22.2	25.9	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)