

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: P290672

Luminaire Tested: **14GR-LD5-32-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290672  
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-LD5-32-F1-UNV-L93050-W2A1-U-4000K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3002.0 lumens  
Efficiency: N/A  
Efficacy: 114.1 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

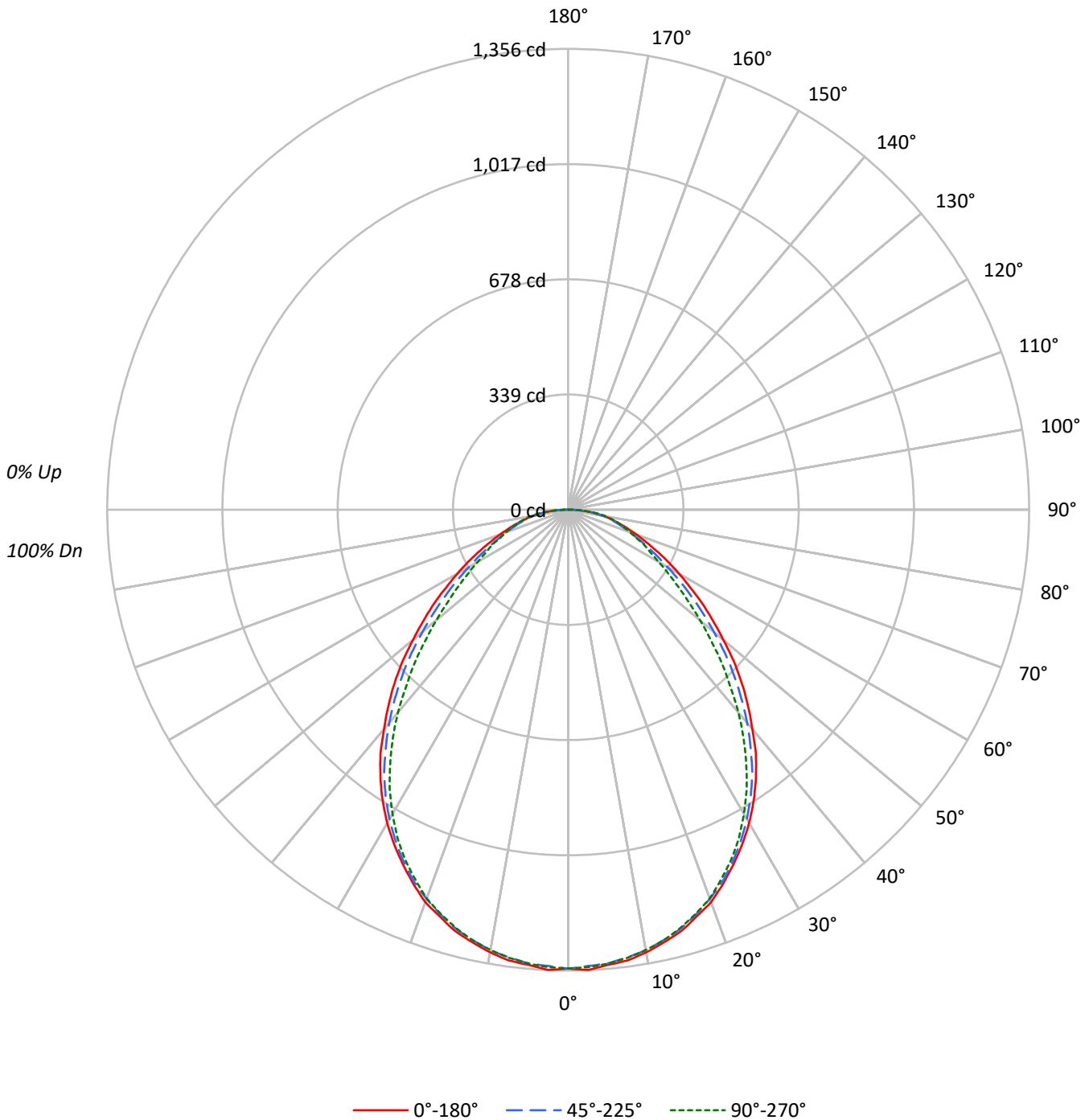
Input Watts (W): 26.319  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	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					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	64	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50	48					48			
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38					38			
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34					34			
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29					29			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3633	3633	3633
5°	3632	3619	3621
10°	3614	3597	3595
15°	3577	3556	3550
20°	3519	3490	3486
25°	3418	3396	3371
30°	3308	3267	3211
35°	3163	3101	3000
40°	2961	2879	2736
45°	2750	2627	2435
50°	2495	2339	2120
55°	2257	2066	1853
60°	2026	1811	1652
65°	1819	1617	1582
70°	1678	1505	1522
75°	1602	1510	1595
80°	1621	1610	1739
85°	1680	1658	1849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	4.2
10°-20°	360.3	12.0
20°-30°	526.2	17.5
30°-40°	586.3	19.5
40°-50°	528.3	17.6
50°-60°	394.9	13.2
60°-70°	260.5	8.7
70°-80°	159.0	5.3
80°-90°	59.0	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°	1014.0	33.8
0°-40°	1600.3	53.3
0°-60°	2523.5	84.1
0°-90°	3002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3002.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1350	1350	1350	1350	1350	
5°	1345	1343	1340	1347	1340	128
15°	1284	1279	1276	1284	1274	361
25°	1151	1147	1144	1146	1135	530
35°	963	954	944	928	913	600
45°	722	715	690	658	640	556
55°	481	473	440	404	395	431
65°	286	277	254	244	248	286
75°	154	151	145	150	153	165
85°	54	52	54	59	60	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1350.1	1350.1	1350.1	1350.1	1350.1
2.5°	1355.6	1349.4	1343.9	1352.1	1347.3
5°	1344.6	1343.2	1339.8	1346.6	1340.4
7.5°	1337.7	1332.9	1328.7	1337.0	1330.1
10°	1322.6	1319.8	1316.4	1323.2	1315.7
12.5°	1304.0	1301.2	1297.8	1306.0	1297.8
15°	1284.0	1279.2	1276.4	1284.0	1274.4
17.5°	1255.1	1253.1	1248.9	1256.5	1246.9
20°	1229.0	1221.4	1218.6	1224.2	1217.3
22.5°	1191.1	1185.6	1184.9	1188.4	1176.7
25°	1151.2	1147.1	1143.6	1145.7	1135.4
27.5°	1109.2	1103.7	1099.6	1098.9	1087.9
30°	1064.5	1057.6	1051.4	1045.9	1033.5
32.5°	1015.7	1007.4	999.1	990.2	977.1
35°	962.7	954.4	944.1	927.6	913.1
37.5°	906.9	897.3	880.8	861.5	847.1
40°	842.9	838.1	819.5	794.8	778.9
42.5°	783.1	777.6	754.2	726.6	705.3
45°	722.5	714.9	690.2	658.5	639.9
47.5°	660.6	653.0	625.5	586.3	569.8
50°	595.9	591.8	558.7	523.0	506.5
52.5°	536.7	531.9	498.2	462.4	447.3
55°	481.0	473.4	440.4	403.9	395.0
57.5°	425.3	417.0	386.0	355.1	348.9
60°	376.4	366.1	336.5	312.4	306.9
62.5°	330.3	318.6	293.8	275.2	272.5
65°	285.6	276.6	253.9	243.6	248.4
67.5°	247.0	238.1	221.6	217.4	216.1
70°	213.3	205.1	191.3	192.7	193.4
72.5°	182.3	177.5	167.2	170.7	173.4
75°	154.1	151.4	145.2	150.0	153.4
77.5°	128.7	126.6	123.9	128.0	133.5
80°	104.6	103.2	103.9	106.7	112.2
82.5°	80.5	77.8	79.8	85.3	88.8
85°	54.4	52.3	53.7	59.2	59.9
87.5°	25.5	25.5	24.8	28.9	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)