

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: P290665

Luminaire Tested: **14GR-LD5-28-F1-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P290665
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-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2241.0 lumens
Efficiency: N/A
Efficacy: 98.8 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

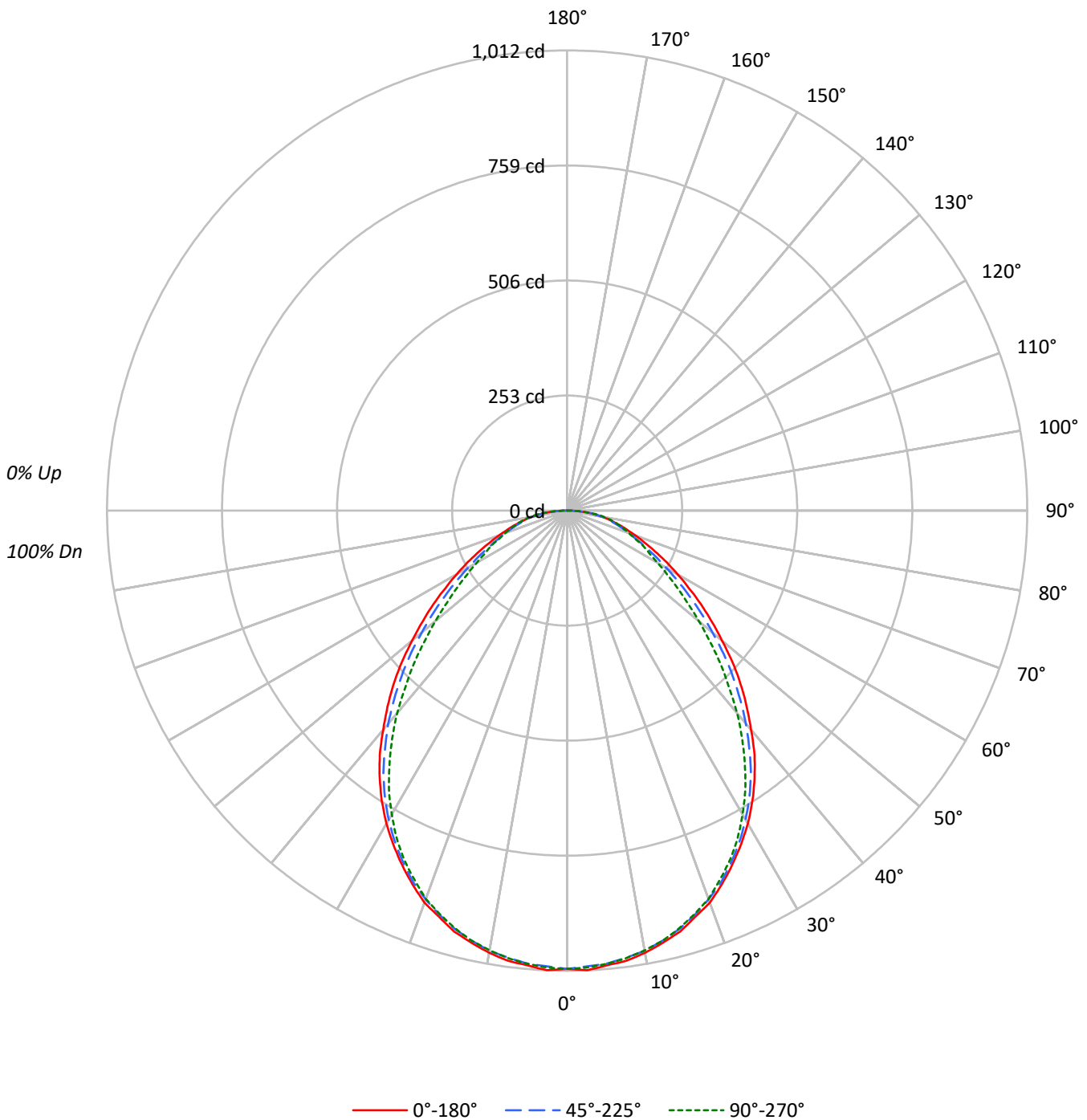
Input Watts (W): 22.692
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					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°	2712	2712	2712
5°	2711	2702	2703
10°	2698	2685	2684
15°	2670	2655	2650
20°	2627	2605	2602
25°	2552	2535	2517
30°	2469	2439	2397
35°	2361	2315	2239
40°	2211	2149	2043
45°	2053	1961	1818
50°	1862	1746	1583
55°	1685	1543	1384
60°	1512	1352	1233
65°	1358	1207	1181
70°	1253	1124	1135
75°	1197	1127	1190
80°	1210	1203	1297
85°	1254	1238	1380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.1	4.2
10°-20°	269.0	12.0
20°-30°	392.8	17.5
30°-40°	437.7	19.5
40°-50°	394.4	17.6
50°-60°	294.8	13.2
60°-70°	194.4	8.7
70°-80°	118.7	5.3
80°-90°	44.0	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°	756.9	33.8
0°-40°	1194.6	53.3
0°-60°	1883.8	84.1
0°-90°	2241.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2241.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1004	1003	1000	1005	1001	95
15°	958	955	953	958	951	270
25°	859	856	854	855	848	396
35°	719	712	705	692	682	448
45°	539	534	515	492	478	415
55°	359	353	329	302	295	322
65°	213	206	190	182	185	214
75°	115	113	108	112	114	123
85°	41	39	40	44	45	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1007.8	1007.8	1007.8	1007.8	1007.8
2.5°	1011.9	1007.3	1003.2	1009.4	1005.8
5°	1003.7	1002.7	1000.1	1005.3	1000.6
7.5°	998.6	995.0	991.9	998.1	992.9
10°	987.3	985.2	982.7	987.8	982.2
12.5°	973.4	971.4	968.8	975.0	968.8
15°	958.5	954.9	952.9	958.5	951.3
17.5°	936.9	935.4	932.3	938.0	930.8
20°	917.4	911.8	909.7	913.8	908.7
22.5°	889.2	885.1	884.6	887.1	878.4
25°	859.4	856.3	853.7	855.3	847.6
27.5°	828.0	823.9	820.9	820.3	812.1
30°	794.7	789.5	784.9	780.8	771.5
32.5°	758.2	752.0	745.9	739.2	729.4
35°	718.6	712.5	704.8	692.4	681.6
37.5°	677.0	669.8	657.5	643.1	632.3
40°	629.3	625.7	611.8	593.3	581.5
42.5°	584.6	580.5	563.0	542.4	526.5
45°	539.4	533.7	515.2	491.6	477.7
47.5°	493.1	487.5	466.9	437.7	425.3
50°	444.8	441.8	417.1	390.4	378.1
52.5°	400.7	397.1	371.9	345.2	333.9
55°	359.1	353.4	328.8	301.5	294.9
57.5°	317.5	311.3	288.2	265.1	260.4
60°	281.0	273.3	251.2	233.2	229.1
62.5°	246.6	237.8	219.3	205.5	203.4
65°	213.2	206.5	189.5	181.8	185.4
67.5°	184.4	177.7	165.4	162.3	161.3
70°	159.2	153.1	142.8	143.8	144.3
72.5°	136.1	132.5	124.8	127.4	129.4
75°	115.1	113.0	108.4	112.0	114.5
77.5°	96.1	94.5	92.5	95.5	99.7
80°	78.1	77.1	77.6	79.6	83.7
82.5°	60.1	58.0	59.6	63.7	66.3
85°	40.6	39.0	40.1	44.2	44.7
87.5°	19.0	19.0	18.5	21.6	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)