

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: P290658

Luminaire Tested: **14GR-LD5-20-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290658  
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-LD5-20-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: 1925.0 lumens  
Efficiency: N/A  
Efficacy: 119.0 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

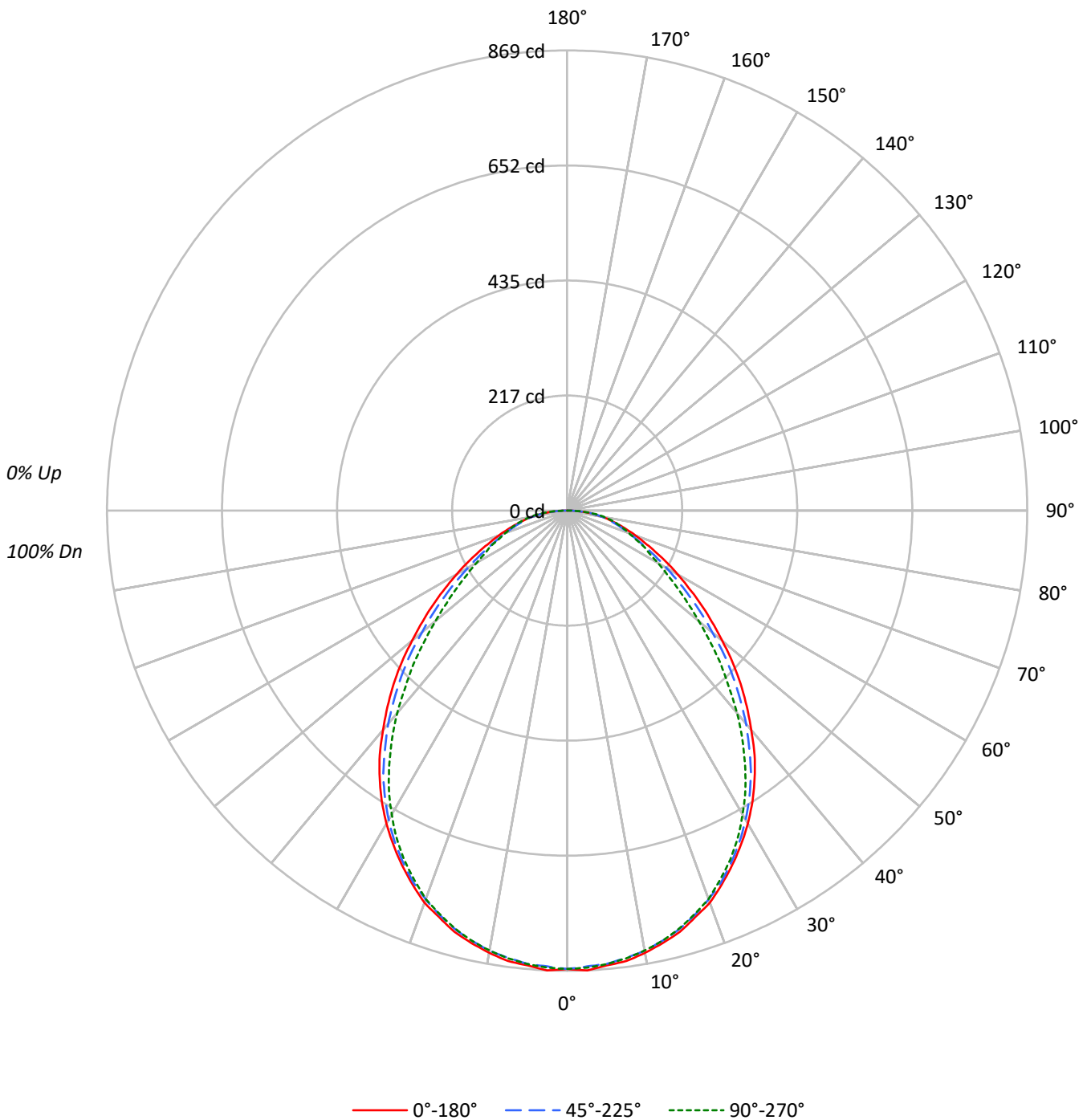
Input Watts (W): 16.182  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2330	2330	2330
5°	2329	2321	2322
10°	2317	2306	2305
15°	2294	2280	2277
20°	2257	2238	2235
25°	2192	2177	2162
30°	2121	2095	2059
35°	2028	1989	1923
40°	1899	1846	1755
45°	1763	1684	1562
50°	1600	1500	1360
55°	1447	1325	1188
60°	1299	1161	1059
65°	1166	1037	1014
70°	1076	965	976
75°	1027	968	1023
80°	1040	1032	1114
85°	1078	1062	1186



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	4.2
10°-20°	231.0	12.0
20°-30°	337.4	17.5
30°-40°	376.0	19.5
40°-50°	338.8	17.6
50°-60°	253.2	13.2
60°-70°	167.0	8.7
70°-80°	102.0	5.3
80°-90°	37.8	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°	650.2	33.8
0°-40°	1026.2	53.3
0°-60°	1618.2	84.1
0°-90°	1925.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1925.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	866	866	866	866	866	
5°	862	861	859	864	860	82
15°	823	820	818	823	817	232
25°	738	736	733	735	728	340
35°	617	612	605	595	586	385
45°	463	458	443	422	410	357
55°	308	304	282	259	253	276
65°	183	177	163	156	159	184
75°	99	97	93	96	98	106
85°	35	34	34	38	38	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	865.7	865.7	865.7	865.7	865.7
2.5°	869.3	865.3	861.7	867.0	864.0
5°	862.2	861.3	859.1	863.5	859.5
7.5°	857.8	854.7	852.0	857.3	852.9
10°	848.1	846.3	844.1	848.5	843.7
12.5°	836.2	834.4	832.2	837.5	832.2
15°	823.4	820.3	818.5	823.4	817.2
17.5°	804.8	803.5	800.9	805.7	799.5
20°	788.1	783.2	781.4	785.0	780.6
22.5°	763.8	760.3	759.8	762.0	754.5
25°	738.2	735.6	733.3	734.7	728.1
27.5°	711.3	707.8	705.1	704.7	697.6
30°	682.6	678.2	674.2	670.7	662.7
32.5°	651.3	646.0	640.7	635.0	626.6
35°	617.3	612.0	605.4	594.8	585.5
37.5°	581.6	575.4	564.8	552.4	543.2
40°	540.5	537.4	525.5	509.6	499.5
42.5°	502.1	498.6	483.6	466.0	452.3
45°	463.3	458.5	442.6	422.3	410.4
47.5°	423.6	418.7	401.1	375.9	365.4
50°	382.1	379.5	358.3	335.3	324.8
52.5°	344.2	341.1	319.5	296.5	286.8
55°	308.4	303.6	282.4	259.0	253.3
57.5°	272.7	267.4	247.5	227.7	223.7
60°	241.4	234.7	215.8	200.3	196.8
62.5°	211.8	204.3	188.4	176.5	174.7
65°	183.1	177.4	162.8	156.2	159.3
67.5°	158.4	152.7	142.1	139.4	138.6
70°	136.8	131.5	122.7	123.5	124.0
72.5°	116.9	113.8	107.2	109.4	111.2
75°	98.8	97.1	93.1	96.2	98.4
77.5°	82.5	81.2	79.4	82.1	85.6
80°	67.1	66.2	66.6	68.4	71.9
82.5°	51.6	49.9	51.2	54.7	56.9
85°	34.9	33.5	34.4	37.9	38.4
87.5°	16.3	16.3	15.9	18.5	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)