

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: P290560

Luminaire Tested: **14GR-LD5-20-F1-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290560  
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-L83050-W2A1-U-4500K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2185.0 lumens  
Efficiency: N/A  
Efficacy: 134.3 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

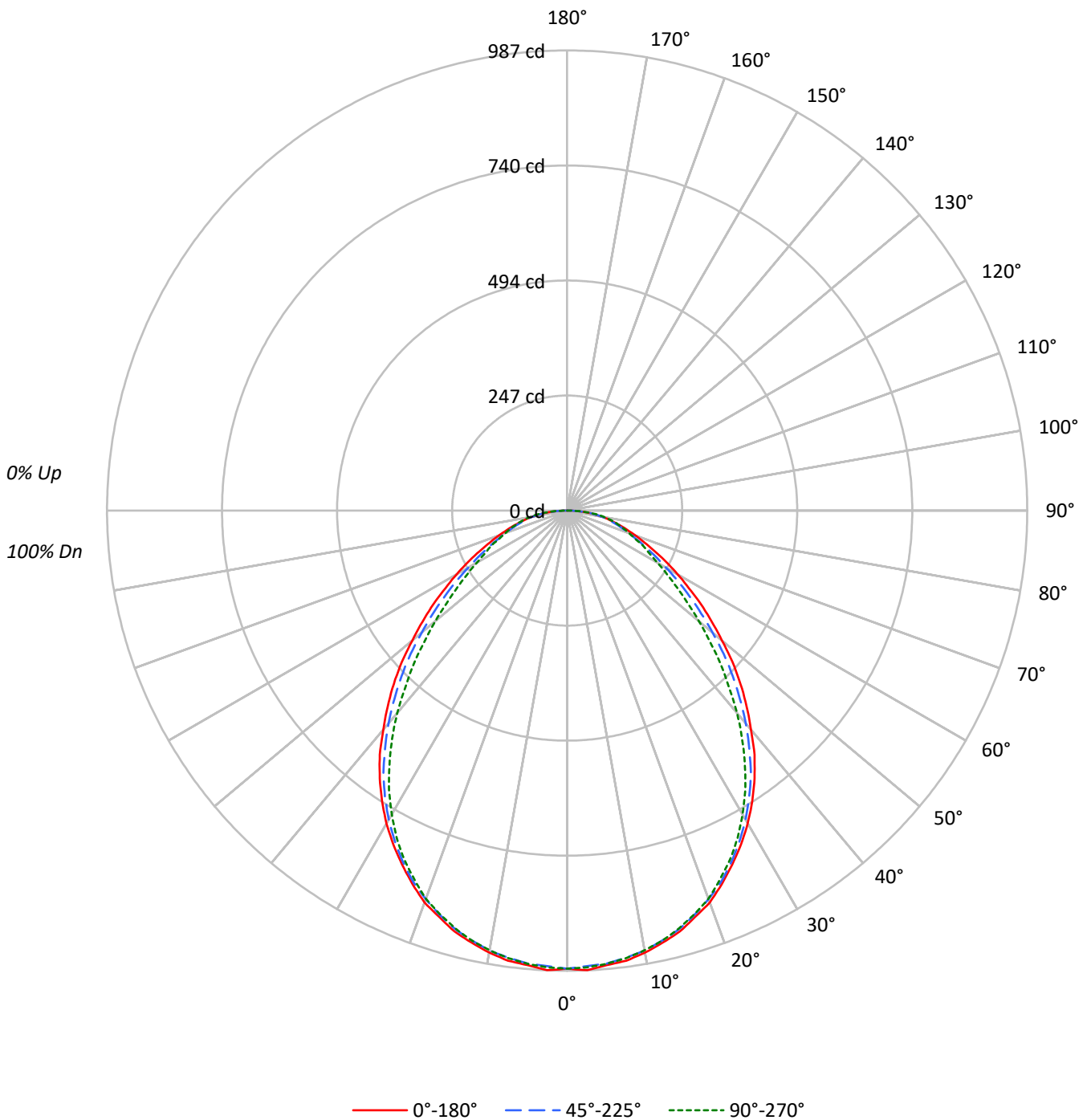
Input Watts (W): 16.275  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2644	2644	2644
5°	2643	2634	2635
10°	2630	2618	2617
15°	2604	2588	2584
20°	2562	2540	2537
25°	2488	2472	2454
30°	2408	2378	2338
35°	2302	2258	2183
40°	2155	2095	1992
45°	2001	1912	1773
50°	1816	1703	1543
55°	1643	1504	1349
60°	1475	1318	1202
65°	1323	1177	1151
70°	1222	1095	1107
75°	1167	1099	1161
80°	1179	1172	1265
85°	1223	1207	1346



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.8	4.2
10°-20°	262.3	12.0
20°-30°	383.0	17.5
30°-40°	426.8	19.5
40°-50°	384.5	17.6
50°-60°	287.4	13.2
60°-70°	189.6	8.7
70°-80°	115.8	5.3
80°-90°	42.9	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°	738.0	33.8
0°-40°	1164.8	53.3
0°-60°	1836.7	84.1
0°-90°	2185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2185.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	979	978	975	980	976	93
15°	935	931	929	935	928	263
25°	838	835	832	834	826	386
35°	701	695	687	675	665	437
45°	526	520	502	479	466	405
55°	350	345	320	294	288	314
65°	208	201	185	177	181	208
75°	112	110	106	109	112	120
85°	40	38	39	43	44	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	982.6	982.6	982.6	982.6	982.6
2.5°	986.7	982.1	978.1	984.2	980.6
5°	978.6	977.6	975.1	980.1	975.6
7.5°	973.6	970.1	967.1	973.1	968.1
10°	962.6	960.6	958.1	963.1	957.6
12.5°	949.1	947.1	944.6	950.6	944.6
15°	934.6	931.1	929.1	934.6	927.6
17.5°	913.5	912.0	909.0	914.5	907.5
20°	894.5	889.0	887.0	891.0	886.0
22.5°	867.0	862.9	862.4	865.0	856.4
25°	837.9	834.9	832.4	833.9	826.4
27.5°	807.4	803.3	800.3	799.8	791.8
30°	774.8	769.8	765.3	761.3	752.3
32.5°	739.2	733.2	727.2	720.7	711.2
35°	700.7	694.7	687.2	675.1	664.6
37.5°	660.1	653.1	641.1	627.1	616.5
40°	613.5	610.0	596.5	578.5	567.0
42.5°	570.0	566.0	548.9	528.9	513.4
45°	525.9	520.4	502.3	479.3	465.8
47.5°	480.8	475.3	455.3	426.7	414.7
50°	433.7	430.7	406.7	380.6	368.6
52.5°	390.7	387.1	362.6	336.6	325.5
55°	350.1	344.6	320.5	294.0	287.5
57.5°	309.5	303.5	281.0	258.4	253.9
60°	274.0	266.4	244.9	227.4	223.4
62.5°	240.4	231.9	213.9	200.3	198.3
65°	207.8	201.3	184.8	177.3	180.8
67.5°	179.8	173.3	161.3	158.3	157.3
70°	155.3	149.3	139.2	140.2	140.7
72.5°	132.7	129.2	121.7	124.2	126.2
75°	112.2	110.2	105.7	109.2	111.7
77.5°	93.7	92.2	90.2	93.2	97.2
80°	76.1	75.1	75.6	77.6	81.6
82.5°	58.6	56.6	58.1	62.1	64.6
85°	39.6	38.1	39.1	43.1	43.6
87.5°	18.5	18.5	18.0	21.0	21.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)