

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: P290663

Luminaire Tested: **14GR-LD5-24-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290663  
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-LD5-24-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: 2254.0 lumens  
Efficiency: N/A  
Efficacy: 118.8 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

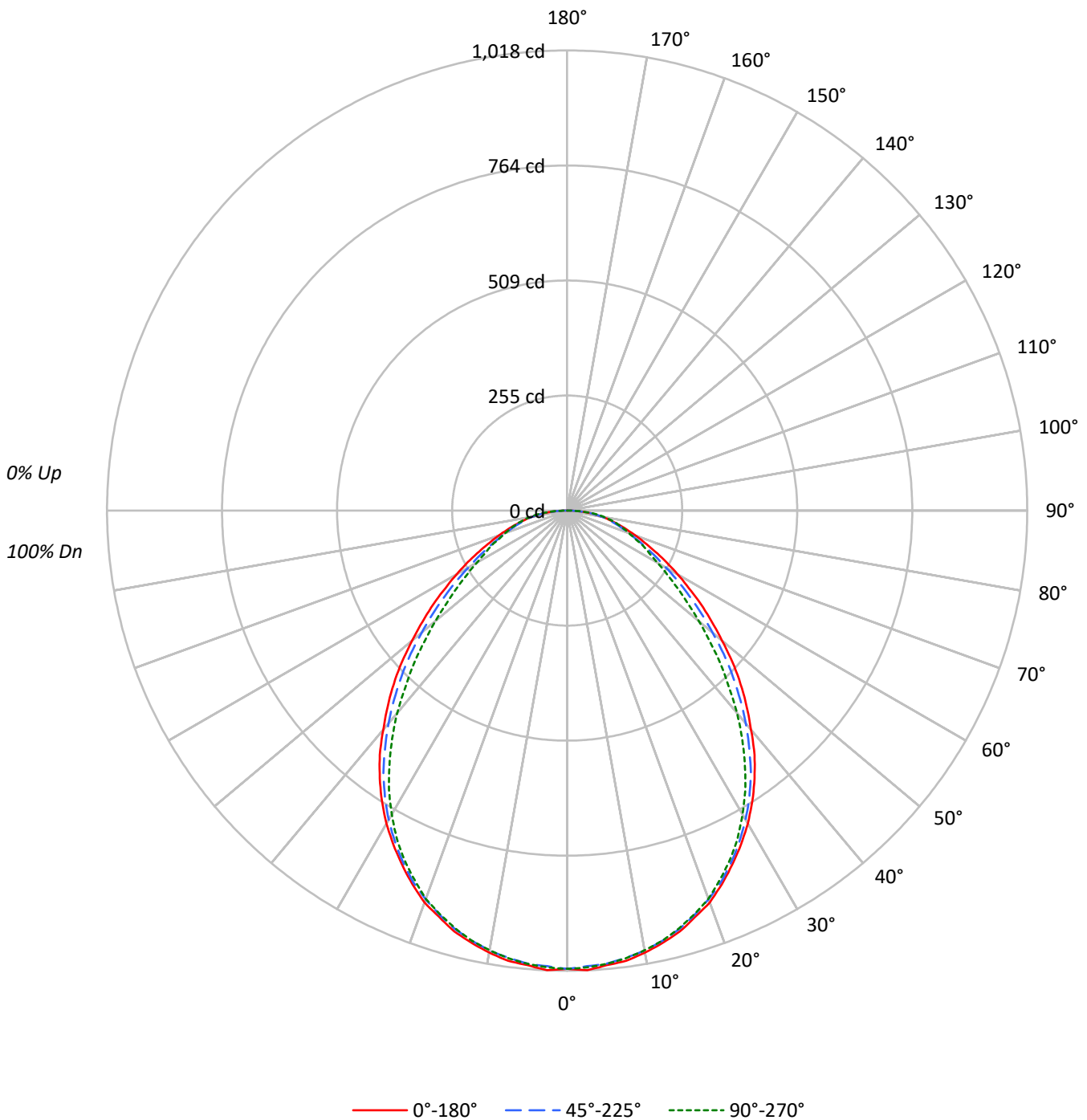
Input Watts (W): 18.972  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	64	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50	48
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29

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

	0°	45°	90°
0°	2728	2728	2728
5°	2727	2717	2719
10°	2713	2701	2699
15°	2686	2670	2666
20°	2642	2620	2617
25°	2567	2550	2531
30°	2484	2453	2411
35°	2374	2329	2252
40°	2223	2161	2055
45°	2065	1972	1829
50°	1873	1756	1592
55°	1694	1552	1392
60°	1521	1359	1240
65°	1365	1214	1188
70°	1260	1130	1142
75°	1203	1133	1198
80°	1216	1209	1305
85°	1260	1244	1386



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.7	4.2
10°-20°	270.5	12.0
20°-30°	395.1	17.5
30°-40°	440.2	19.5
40°-50°	396.7	17.6
50°-60°	296.5	13.2
60°-70°	195.6	8.7
70°-80°	119.4	5.3
80°-90°	44.3	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°	761.3	33.8
0°-40°	1201.6	53.3
0°-60°	1894.7	84.1
0°-90°	2254.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2254.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1014	1014	1014	1014	1014	
5°	1010	1008	1006	1011	1006	96
15°	964	960	958	964	957	271
25°	864	861	859	860	852	398
35°	723	717	709	696	686	451
45°	542	537	518	494	480	418
55°	361	356	331	303	297	323
65°	214	208	191	183	186	215
75°	116	114	109	113	115	124
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°	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1017.8	1013.2	1009.0	1015.2	1011.6
5°	1009.5	1008.5	1005.9	1011.1	1006.4
7.5°	1004.4	1000.8	997.7	1003.9	998.7
10°	993.0	990.9	988.4	993.5	987.8
12.5°	979.1	977.0	974.4	980.6	974.4
15°	964.1	960.5	958.4	964.1	956.8
17.5°	942.4	940.8	937.7	943.4	936.2
20°	922.7	917.1	915.0	919.1	914.0
22.5°	894.3	890.2	889.7	892.3	883.5
25°	864.4	861.3	858.7	860.2	852.5
27.5°	832.9	828.7	825.6	825.1	816.8
30°	799.3	794.1	789.5	785.3	776.0
32.5°	762.6	756.4	750.2	743.5	733.7
35°	722.8	716.6	708.9	696.5	685.6
37.5°	681.0	673.7	661.3	646.9	636.0
40°	632.9	629.3	615.3	596.7	584.9
42.5°	588.0	583.8	566.3	545.6	529.6
45°	542.5	536.8	518.2	494.4	480.5
47.5°	496.0	490.3	469.6	440.2	427.8
50°	447.4	444.3	419.5	392.7	380.3
52.5°	403.0	399.4	374.1	347.2	335.8
55°	361.1	355.5	330.7	303.3	296.6
57.5°	319.3	313.1	289.8	266.6	261.9
60°	282.6	274.9	252.6	234.6	230.4
62.5°	248.0	239.2	220.6	206.7	204.6
65°	214.4	207.7	190.6	182.9	186.5
67.5°	185.5	178.8	166.4	163.3	162.2
70°	160.2	154.0	143.6	144.7	145.2
72.5°	136.9	133.3	125.5	128.1	130.2
75°	115.7	113.7	109.0	112.6	115.2
77.5°	96.6	95.1	93.0	96.1	100.2
80°	78.5	77.5	78.0	80.1	84.2
82.5°	60.4	58.4	59.9	64.1	66.6
85°	40.8	39.3	40.3	44.4	44.9
87.5°	19.1	19.1	18.6	21.7	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)