

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: P295533

Luminaire Tested: **14RLN-LD5-23-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295533  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1901-085-1)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14RLN-LD5-23-UNV-L83050-W2A1-U-3000K  
Description: RLN LED 1x4 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2237.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.01 / 1.18  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

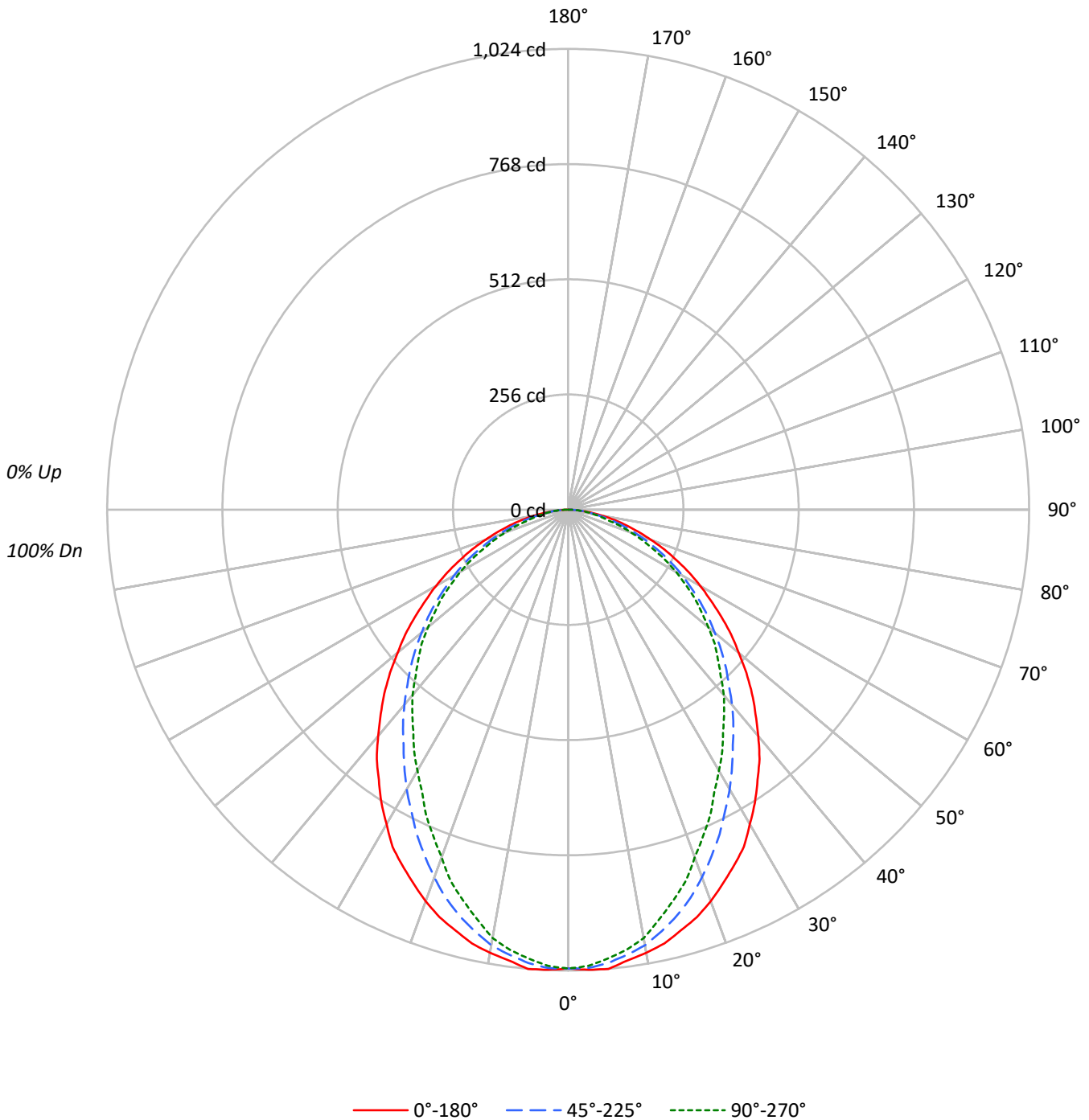
Input Watts (W): 20.646  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P295533

CATALOG NUMBER: 14RLN-LD5-23-UNV-L83050-W2A1-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P295533

CATALOG NUMBER: 14RLN-LD5-23-UNV-L83050-W2A1-U-3000K

**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	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	85	73	65	58	82	72	64	58	69	63	57	67	61	56	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	55	50	61	54	49	59	53	49	47					47			
6	72	60	51	45	70	59	50	45	57	50	44	55	49	44	54	48	43	41					41			
7	67	54	46	40	66	53	45	40	52	45	39	51	44	39	49	43	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	28					28			

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

	0°	45°	90°
0°	2743	2743	2743
5°	2767	2731	2706
10°	2732	2685	2641
15°	2696	2601	2506
20°	2652	2489	2354
25°	2589	2362	2219
30°	2507	2229	2082
35°	2409	2095	1971
40°	2307	1988	1888
45°	2197	1884	1791
50°	2069	1780	1701
55°	1951	1680	1609
60°	1826	1576	1490
65°	1691	1456	1336
70°	1539	1308	1182
75°	1385	1169	963
80°	1185	951	908
85°	963	905	905



TEST NUMBER: P295533

CATALOG NUMBER: 14RLN-LD5-23-UNV-L83050-W2A1-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	4.3
10°-20°	262.0	11.7
20°-30°	367.7	16.4
30°-40°	407.8	18.2
40°-50°	391.5	17.5
50°-60°	328.1	14.7
60°-70°	230.3	10.3
70°-80°	120.3	5.4
80°-90°	33.7	1.5
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°	725.2	32.4
0°-40°	1133.0	50.6
0°-60°	1852.7	82.8
0°-90°	2237.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2237.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	1024	1011	1011	1004	1002	97
15°	968	951	934	909	900	273
25°	872	841	796	757	747	401
35°	733	693	638	607	600	459
45°	577	533	495	476	471	445
55°	416	385	358	347	343	372
65°	266	248	229	214	210	264
75°	133	123	112	99	93	141
85°	31	29	29	29	29	37
90°	0	0	0	0	0	



TEST NUMBER: P295533

CATALOG NUMBER: 14RLN-LD5-23-UNV-L83050-W2A1-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1019.5	1019.5	1019.5	1019.5	1019.5
2.5°	1023.3	1017.6	1019.5	1019.5	1014.8
5°	1024.3	1011.0	1011.0	1004.4	1001.6
7.5°	1010.1	999.7	997.8	989.3	986.5
10°	999.7	989.3	982.7	971.3	966.6
12.5°	987.4	971.3	959.1	940.2	932.6
15°	967.6	950.6	933.6	909.0	899.5
17.5°	949.6	929.8	904.3	876.9	866.5
20°	926.0	902.4	869.3	831.5	822.1
22.5°	898.6	871.2	832.4	791.8	784.3
25°	872.1	841.0	795.6	756.9	747.4
27.5°	844.7	806.9	755.0	713.4	703.9
30°	806.9	768.2	717.2	676.5	669.9
32.5°	772.0	733.2	677.5	644.4	636.9
35°	733.2	692.6	637.8	606.6	600.0
37.5°	698.3	651.0	602.8	572.6	568.8
40°	656.7	614.2	566.0	543.3	537.6
42.5°	616.1	573.5	528.2	508.4	501.7
45°	577.3	532.9	495.1	476.2	470.6
47.5°	536.7	496.1	460.2	445.0	441.3
50°	494.2	458.3	425.2	411.0	406.3
52.5°	456.4	419.5	392.1	378.9	373.2
55°	415.8	384.6	358.1	346.8	343.0
57.5°	375.1	349.6	324.1	313.7	308.0
60°	339.2	313.7	292.9	280.6	276.9
62.5°	302.4	280.6	260.8	249.5	244.7
65°	265.5	247.6	228.7	214.5	209.8
67.5°	231.5	211.7	196.5	184.3	179.5
70°	195.6	181.4	166.3	155.0	150.2
72.5°	162.5	152.1	138.9	126.6	121.9
75°	133.2	122.8	112.4	99.2	92.6
77.5°	103.9	97.3	86.9	75.6	75.6
80°	76.5	72.8	61.4	59.5	58.6
82.5°	52.9	51.0	44.4	43.5	43.5
85°	31.2	29.3	29.3	29.3	29.3
87.5°	13.2	14.2	15.1	15.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)