

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: P295536

Luminaire Tested: **14RLN-LD5-23-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295536  
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-4500K  
Description: RLN LED 1x4 TUNABLE WHITE TROFFER  
WITH STANDARD LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2509.0 lumens  
Efficiency: N/A  
Efficacy: 115.8 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

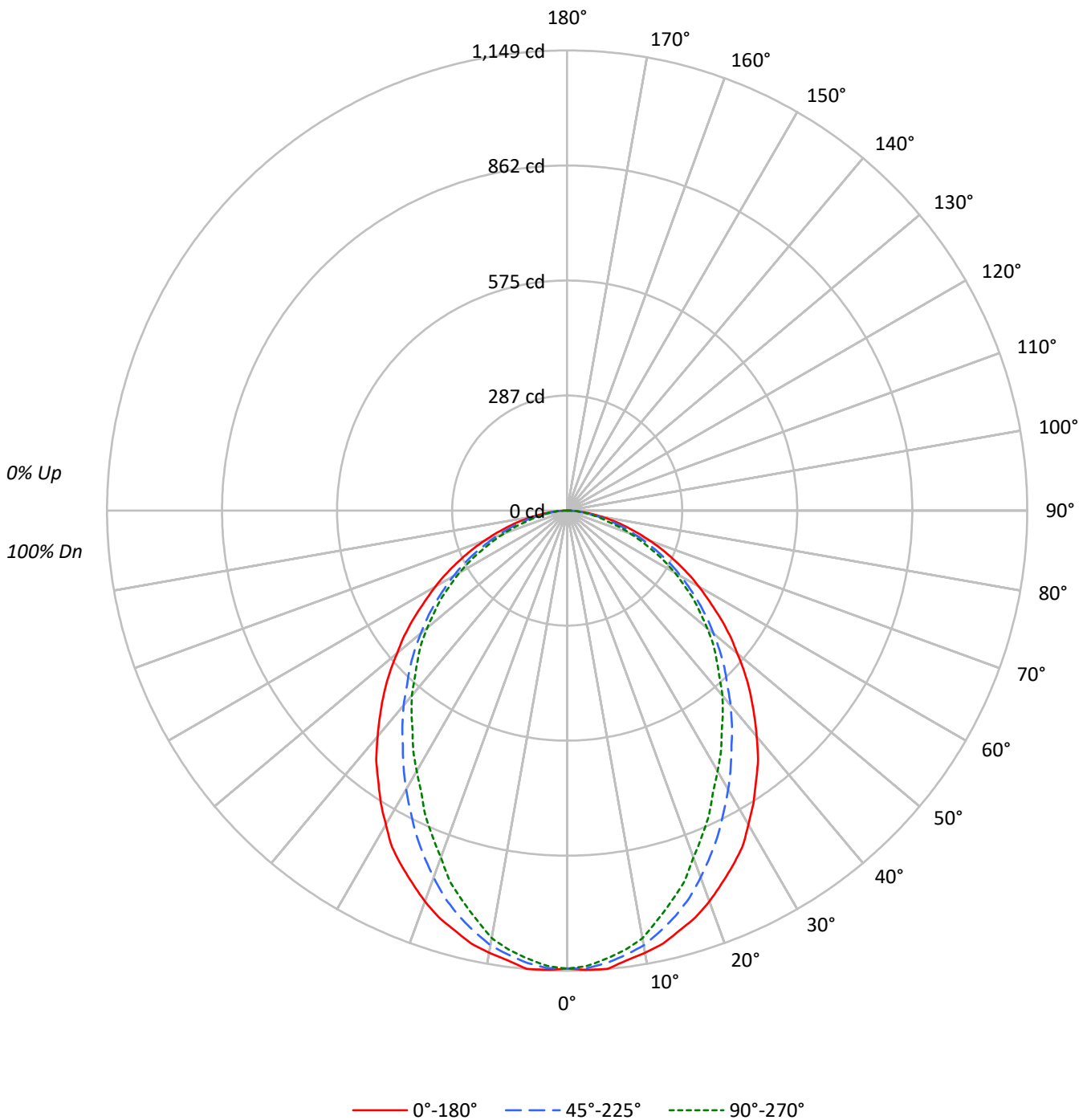
Input Watts (W): 21.669  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3077	3077	3077
5°	3103	3063	3035
10°	3064	3012	2963
15°	3023	2917	2811
20°	2974	2792	2640
25°	2904	2649	2489
30°	2812	2499	2335
35°	2702	2350	2211
40°	2587	2230	2118
45°	2464	2113	2009
50°	2321	1997	1908
55°	2188	1885	1805
60°	2048	1768	1671
65°	1896	1633	1498
70°	1726	1467	1326
75°	1553	1311	1080
80°	1330	1068	1018
85°	1081	1016	1016



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.1	4.3
10°-20°	293.9	11.7
20°-30°	412.4	16.4
30°-40°	457.5	18.2
40°-50°	439.1	17.5
50°-60°	368.0	14.7
60°-70°	258.4	10.3
70°-80°	134.9	5.4
80°-90°	37.8	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°	813.4	32.4
0°-40°	1270.8	50.6
0°-60°	2078.0	82.8
0°-90°	2509.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2509.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1149	1134	1134	1126	1123	108
15°	1085	1066	1047	1020	1009	306
25°	978	943	892	849	838	450
35°	822	777	715	680	673	515
45°	648	598	555	534	528	499
55°	466	431	402	389	385	417
65°	298	278	256	241	235	296
75°	149	138	126	111	104	158
85°	35	33	33	33	33	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1143.5	1143.5	1143.5	1143.5	1143.5
2.5°	1147.7	1141.4	1143.5	1143.5	1138.2
5°	1148.8	1134.0	1134.0	1126.5	1123.4
7.5°	1132.9	1121.2	1119.1	1109.6	1106.4
10°	1121.2	1109.6	1102.2	1089.5	1084.2
12.5°	1107.5	1089.5	1075.7	1054.5	1046.0
15°	1085.2	1066.1	1047.1	1019.5	1008.9
17.5°	1065.1	1042.8	1014.2	983.5	971.8
20°	1038.6	1012.1	975.0	932.6	922.0
22.5°	1007.9	977.1	933.7	888.1	879.6
25°	978.2	943.2	892.3	848.9	838.3
27.5°	947.4	905.1	846.8	800.1	789.5
30°	905.1	861.6	804.4	758.8	751.4
32.5°	865.8	822.4	759.9	722.8	714.3
35°	822.4	776.8	715.4	680.4	673.0
37.5°	783.2	730.2	676.1	642.2	638.0
40°	736.5	688.9	634.8	609.4	603.0
42.5°	691.0	643.3	592.4	570.2	562.7
45°	647.5	597.7	555.3	534.1	527.8
47.5°	602.0	556.4	516.1	499.2	494.9
50°	554.3	514.0	476.9	461.0	455.7
52.5°	511.9	470.5	439.8	425.0	418.6
55°	466.3	431.3	401.7	388.9	384.7
57.5°	420.7	392.1	363.5	351.8	345.5
60°	380.5	351.8	328.5	314.8	310.5
62.5°	339.1	314.8	292.5	279.8	274.5
65°	297.8	277.7	256.5	240.6	235.3
67.5°	259.6	237.4	220.4	206.7	201.4
70°	219.4	203.5	186.5	173.8	168.5
72.5°	182.3	170.6	155.8	142.0	136.7
75°	149.4	137.8	126.1	111.3	103.9
77.5°	116.6	109.2	97.5	84.8	84.8
80°	85.8	81.6	68.9	66.8	65.7
82.5°	59.3	57.2	49.8	48.7	48.7
85°	35.0	32.9	32.9	32.9	32.9
87.5°	14.8	15.9	17.0	17.0	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)