

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: P295953

Luminaire Tested: **24RLN-LD5-31-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P295953  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-31-UNV-L93050-W2A1-U-3000K  
Description: RLN LED 2x4 TUNABLE WHITE TROFFER WITH STANDARD LENS  
Light Source: (504) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2412.0 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

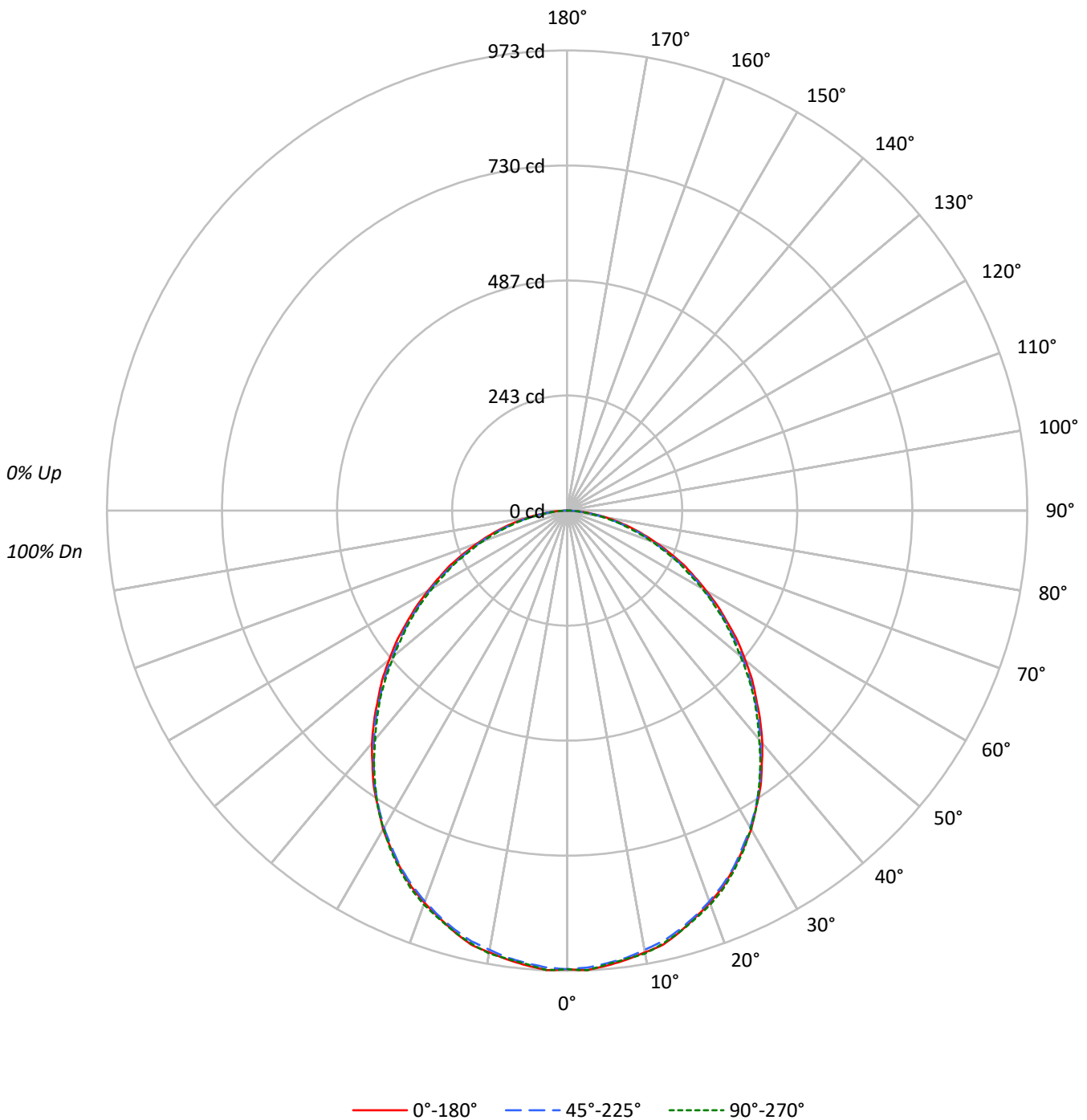
Input Watts (W): 21.669  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85					85			
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	72					72			
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61					61			
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52					52			
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46					46			
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40					40			
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36					36			
8	62	49	40	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32					32			
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

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

	0°	45°	90°
0°	1305	1305	1305
5°	1304	1298	1301
10°	1296	1289	1299
15°	1284	1278	1284
20°	1263	1259	1269
25°	1238	1236	1243
30°	1209	1203	1207
35°	1171	1166	1163
40°	1128	1117	1110
45°	1076	1066	1062
50°	1028	1011	1000
55°	973	958	949
60°	915	898	888
65°	865	833	825
70°	793	762	747
75°	728	684	656
80°	639	597	561
85°	517	480	409



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.5	3.8
10°-20°	259.3	10.8
20°-30°	383.6	15.9
30°-40°	442.7	18.4
40°-50°	432.4	17.9
50°-60°	365.1	15.1
60°-70°	260.1	10.8
70°-80°	140.8	5.8
80°-90°	36.3	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°	734.4	30.4
0°-40°	1177.2	48.8
0°-60°	1974.7	81.9
0°-90°	2412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2412.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	966	966	961	963	963	92
15°	922	918	917	921	922	260
25°	834	830	833	836	837	384
35°	713	707	710	707	708	445
45°	566	561	560	558	558	437
55°	415	409	408	405	405	372
65°	272	266	262	258	259	268
75°	140	135	132	128	126	148
85°	34	33	31	27	26	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	969.6	969.6	969.6	969.6	969.6
2.5°	972.7	968.8	967.2	968.0	972.7
5°	965.7	965.7	961.0	963.3	963.3
7.5°	957.9	958.7	954.0	957.9	956.3
10°	948.5	946.2	943.1	949.3	950.9
12.5°	940.0	934.5	933.0	936.9	937.7
15°	922.1	918.2	917.4	921.3	922.1
17.5°	901.9	902.6	899.5	905.0	904.2
20°	882.4	880.8	879.3	885.5	886.3
22.5°	860.6	855.9	857.5	863.0	864.5
25°	834.2	829.5	832.6	835.7	837.3
27.5°	806.1	803.8	803.0	806.9	808.5
30°	778.1	774.2	774.2	778.9	776.6
32.5°	743.9	740.8	742.3	743.9	744.7
35°	712.8	707.3	709.7	707.3	708.1
37.5°	676.2	672.3	671.5	670.8	670.8
40°	642.0	638.8	635.7	635.7	631.8
42.5°	604.6	600.7	599.2	596.8	594.5
45°	565.7	561.0	560.3	557.9	557.9
47.5°	530.7	523.7	522.9	518.2	518.2
50°	491.0	486.3	483.2	480.1	477.8
52.5°	455.2	450.5	445.9	442.8	440.4
55°	414.7	409.3	408.5	404.6	404.6
57.5°	378.2	373.5	370.4	365.7	366.5
60°	340.0	335.4	333.8	329.9	329.9
62.5°	304.3	300.4	298.0	294.1	291.0
65°	271.6	266.1	261.5	258.3	259.1
67.5°	235.8	229.5	227.2	224.1	221.8
70°	201.5	197.6	193.8	189.9	189.9
72.5°	169.6	165.7	163.4	158.7	157.2
75°	140.1	135.4	131.5	128.4	126.1
77.5°	110.5	105.8	103.5	99.6	99.6
80°	82.5	79.4	77.0	75.5	72.4
82.5°	56.8	55.2	52.9	50.6	48.2
85°	33.5	32.7	31.1	27.2	26.5
87.5°	13.2	13.2	11.7	10.9	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)