

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: P229753

Luminaire Tested: **24RLN-LD5-67-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229753  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36038)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-67-UNV-L930-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)3000K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5607.0 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

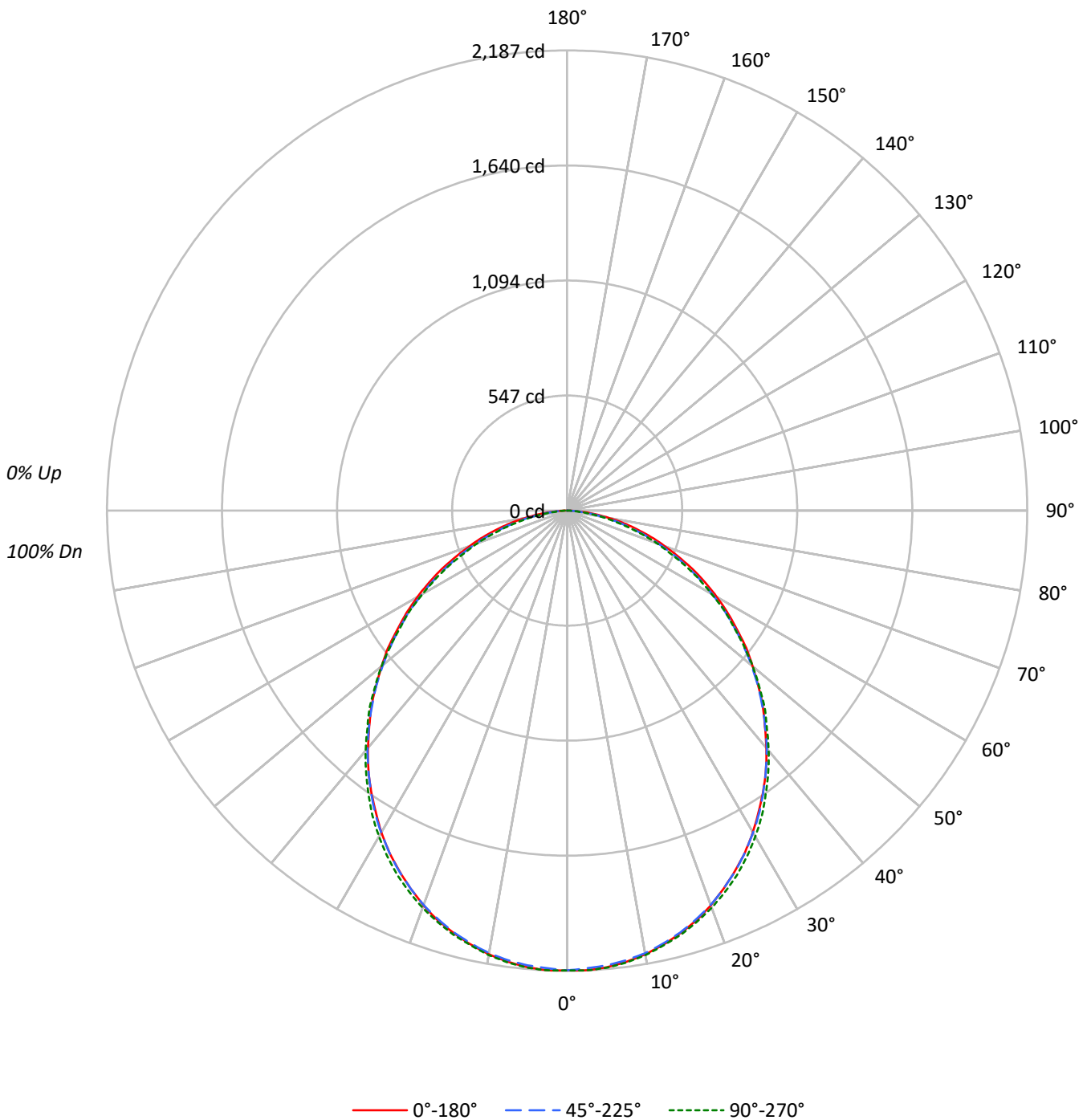
Input Watts (W): 53.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	89	91	89	87	85					85			
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71					71			
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	60					60			
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52					52			
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45					45			
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40					40			
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35					35			
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32					32			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28					28			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26					26			

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

	0°	45°	90°
0°	3347	3347	3347
5°	3349	3336	3352
10°	3330	3322	3336
15°	3298	3292	3309
20°	3255	3252	3275
25°	3193	3196	3228
30°	3123	3126	3163
35°	3038	3041	3077
40°	2945	2952	2980
45°	2850	2843	2877
50°	2740	2724	2745
55°	2628	2595	2586
60°	2518	2442	2431
65°	2378	2276	2244
70°	2204	2069	2030
75°	2025	1827	1733
80°	1774	1525	1385
85°	1457	1054	837



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.5	3.7
10°-20°	586.6	10.5
20°-30°	872.8	15.6
30°-40°	1019.7	18.2
40°-50°	1013.7	18.1
50°-60°	871.0	15.5
60°-70°	625.5	11.2
70°-80°	333.1	5.9
80°-90°	78.0	1.4
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°	1665.9	29.7
0°-40°	2685.6	47.9
0°-60°	4570.4	81.5
0°-90°	5607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5607.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2185	2185	2185	2185	2185	
5°	2178	2175	2170	2177	2180	207
15°	2080	2080	2076	2083	2087	586
25°	1889	1889	1891	1905	1910	870
35°	1624	1621	1626	1644	1646	1016
45°	1316	1305	1312	1319	1328	1013
55°	984	972	972	972	968	883
65°	656	637	628	621	619	649
75°	342	323	309	300	293	364
85°	83	71	60	49	48	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2185.4	2185.4	2185.4	2185.4	2185.4
2.5°	2187.2	2183.7	2176.6	2185.4	2187.2
5°	2178.4	2174.8	2169.6	2176.6	2180.1
7.5°	2162.5	2159.0	2155.4	2162.5	2166.0
10°	2141.3	2139.6	2136.0	2144.9	2144.9
12.5°	2113.1	2111.3	2107.8	2116.6	2116.6
15°	2079.6	2079.6	2076.1	2083.1	2086.7
17.5°	2042.6	2040.8	2037.3	2046.1	2049.6
20°	1996.7	1996.7	1994.9	2005.5	2009.0
22.5°	1943.8	1943.8	1943.8	1957.9	1961.4
25°	1889.1	1889.1	1890.9	1905.0	1910.3
27.5°	1830.9	1829.1	1830.9	1846.8	1852.1
30°	1765.6	1762.1	1767.4	1783.3	1788.6
32.5°	1695.1	1691.5	1700.4	1714.5	1721.5
35°	1624.5	1621.0	1626.3	1643.9	1645.7
37.5°	1552.2	1543.4	1552.2	1568.1	1569.8
40°	1472.8	1465.8	1476.4	1483.4	1490.5
42.5°	1391.7	1388.2	1393.5	1405.8	1405.8
45°	1315.8	1305.3	1312.3	1319.4	1328.2
47.5°	1231.2	1225.9	1229.4	1234.7	1238.2
50°	1150.0	1141.2	1143.0	1148.3	1151.8
52.5°	1074.2	1056.6	1056.6	1060.1	1060.1
55°	984.2	971.9	971.9	971.9	968.4
57.5°	904.9	889.0	887.2	887.2	887.2
60°	822.0	802.6	797.3	797.3	793.7
62.5°	739.1	721.4	714.4	707.3	707.3
65°	656.2	636.8	627.9	620.9	619.1
67.5°	571.5	557.4	546.8	538.0	529.2
70°	492.1	476.2	462.1	453.3	453.3
72.5°	418.0	400.4	386.3	375.7	370.4
75°	342.2	322.8	308.7	299.9	292.8
77.5°	275.2	254.0	239.9	227.5	220.5
80°	201.1	185.2	172.9	160.5	157.0
82.5°	139.3	127.0	112.9	104.1	100.5
85°	82.9	70.6	60.0	49.4	47.6
87.5°	33.5	24.7	19.4	19.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)