

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: P229658

Luminaire Tested: **22RLN-LD5-31-UNV-L840-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229658  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36063)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22RLN-LD5-31-UNV-L840-CD1-SVPD1-U  
Description: METALUX 2X2 RLN LED TROFFER WITH SENSOR  
Light Source: (126)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3039.0 lumens  
Efficiency: N/A  
Efficacy: 114.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.21 / 1.29  
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')  
CIE Type: Direct

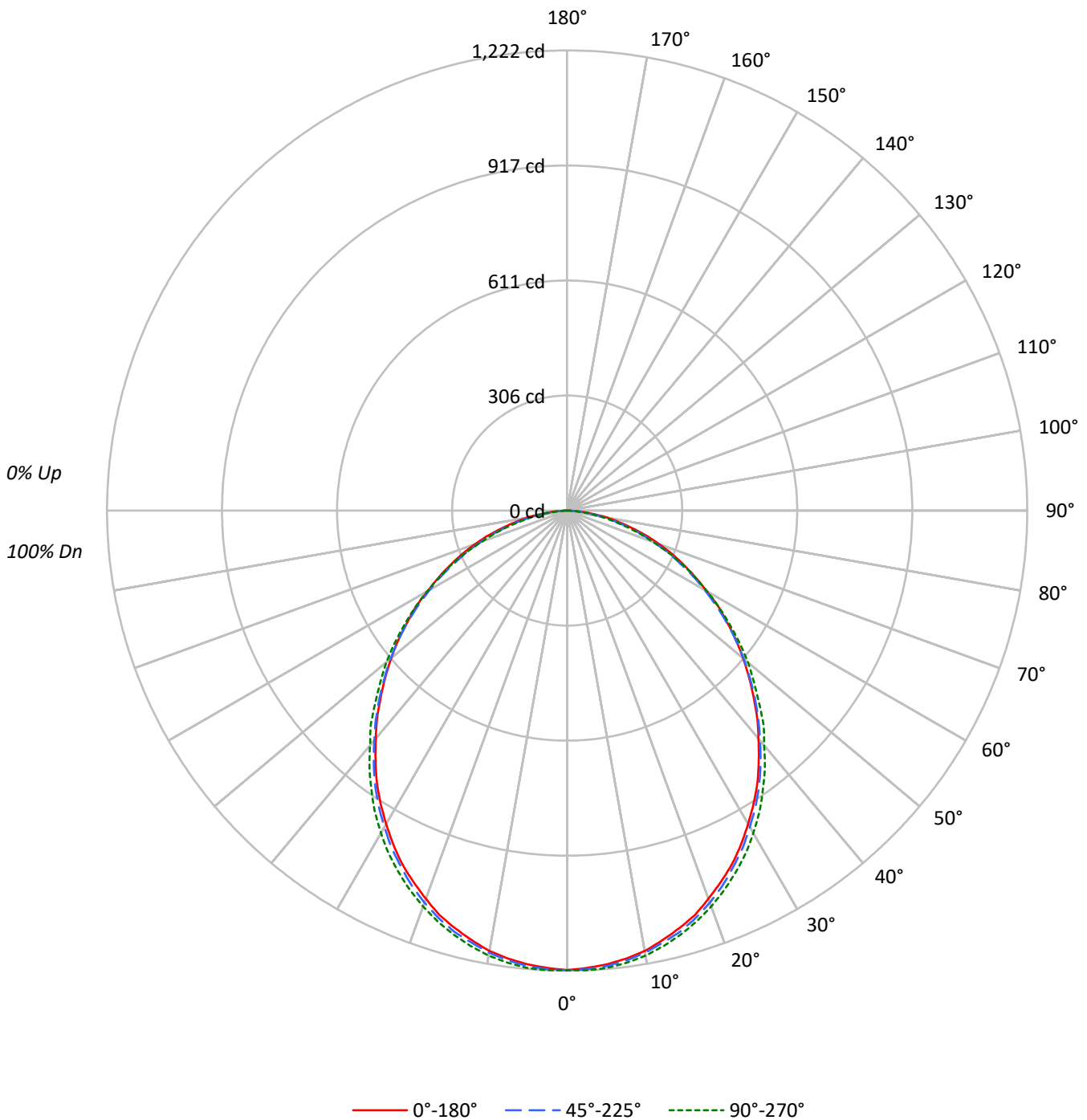
Input Watts (W): 26.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46
6	72	58	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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

	0°	45°	90°
0°	3908	3908	3908
5°	3888	3903	3918
10°	3862	3877	3902
15°	3808	3839	3865
20°	3738	3776	3813
25°	3661	3688	3744
30°	3553	3588	3658
35°	3446	3476	3543
40°	3305	3332	3404
45°	3170	3192	3262
50°	3036	3052	3122
55°	2897	2888	2940
60°	2742	2702	2752
65°	2593	2498	2558
70°	2429	2297	2253
75°	2204	2031	1953
80°	1988	1730	1614
85°	1551	1205	1033



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.2	3.8
10°-20°	326.0	10.7
20°-30°	481.4	15.8
30°-40°	556.7	18.3
40°-50°	546.0	18.0
50°-60°	464.4	15.3
60°-70°	330.8	10.9
70°-80°	176.5	5.8
80°-90°	41.9	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°	922.7	30.4
0°-40°	1479.4	48.7
0°-60°	2489.8	81.9
0°-90°	3039.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3039.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1220	1220	1220	1220	1220	
5°	1209	1211	1214	1217	1219	115
15°	1148	1150	1158	1164	1166	324
25°	1036	1038	1044	1055	1059	476
35°	881	878	889	903	906	550
45°	700	698	705	717	720	540
55°	519	514	517	523	527	465
65°	342	331	330	331	338	339
75°	178	169	164	161	158	191
85°	42	38	33	28	28	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1220.3	1220.3	1220.3	1220.3	1220.3
2.5°	1215.6	1217.2	1218.8	1221.9	1221.9
5°	1209.4	1210.9	1214.1	1217.2	1218.8
7.5°	1200.0	1200.0	1204.7	1207.8	1210.9
10°	1187.5	1189.1	1192.2	1196.9	1200.0
12.5°	1168.8	1171.9	1175.0	1181.3	1184.4
15°	1148.4	1150.0	1157.8	1164.1	1165.6
17.5°	1126.6	1126.6	1134.4	1140.6	1143.8
20°	1096.9	1100.0	1107.8	1115.6	1118.8
22.5°	1067.2	1070.3	1078.1	1085.9	1090.6
25°	1035.9	1037.5	1043.8	1054.7	1059.4
27.5°	1000.0	1003.1	1009.4	1020.3	1026.6
30°	960.9	964.1	970.3	982.8	989.1
32.5°	921.9	925.0	931.3	943.8	950.0
35°	881.3	878.1	889.1	903.1	906.3
37.5°	835.9	837.5	843.8	856.3	862.5
40°	790.6	790.6	796.9	810.9	814.1
42.5°	746.9	745.3	751.6	764.1	771.9
45°	700.0	698.4	704.7	717.2	720.3
47.5°	654.7	651.6	657.8	668.8	671.9
50°	609.4	606.3	612.5	621.9	626.6
52.5°	565.6	559.4	564.1	571.9	576.6
55°	518.8	514.1	517.2	523.4	526.6
57.5°	476.6	467.2	468.8	475.0	478.1
60°	428.1	420.3	421.9	428.1	429.7
62.5°	384.4	376.6	376.6	378.1	381.3
65°	342.2	331.3	329.7	331.3	337.5
67.5°	301.6	290.6	287.5	287.5	289.1
70°	259.4	248.4	245.3	243.8	240.6
72.5°	220.3	206.3	204.7	200.0	201.6
75°	178.1	168.8	164.1	160.9	157.8
77.5°	140.6	132.8	126.6	121.9	121.9
80°	107.8	96.9	93.8	87.5	87.5
82.5°	71.9	67.2	60.9	56.3	54.7
85°	42.2	37.5	32.8	28.1	28.1
87.5°	15.6	12.5	10.9	10.9	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)