

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: P391831

Luminaire Tested: **24CZ2-90VHE-RDP-UNV-L950-CD1-SWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P391831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-90VHE-RDP-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5452.2 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

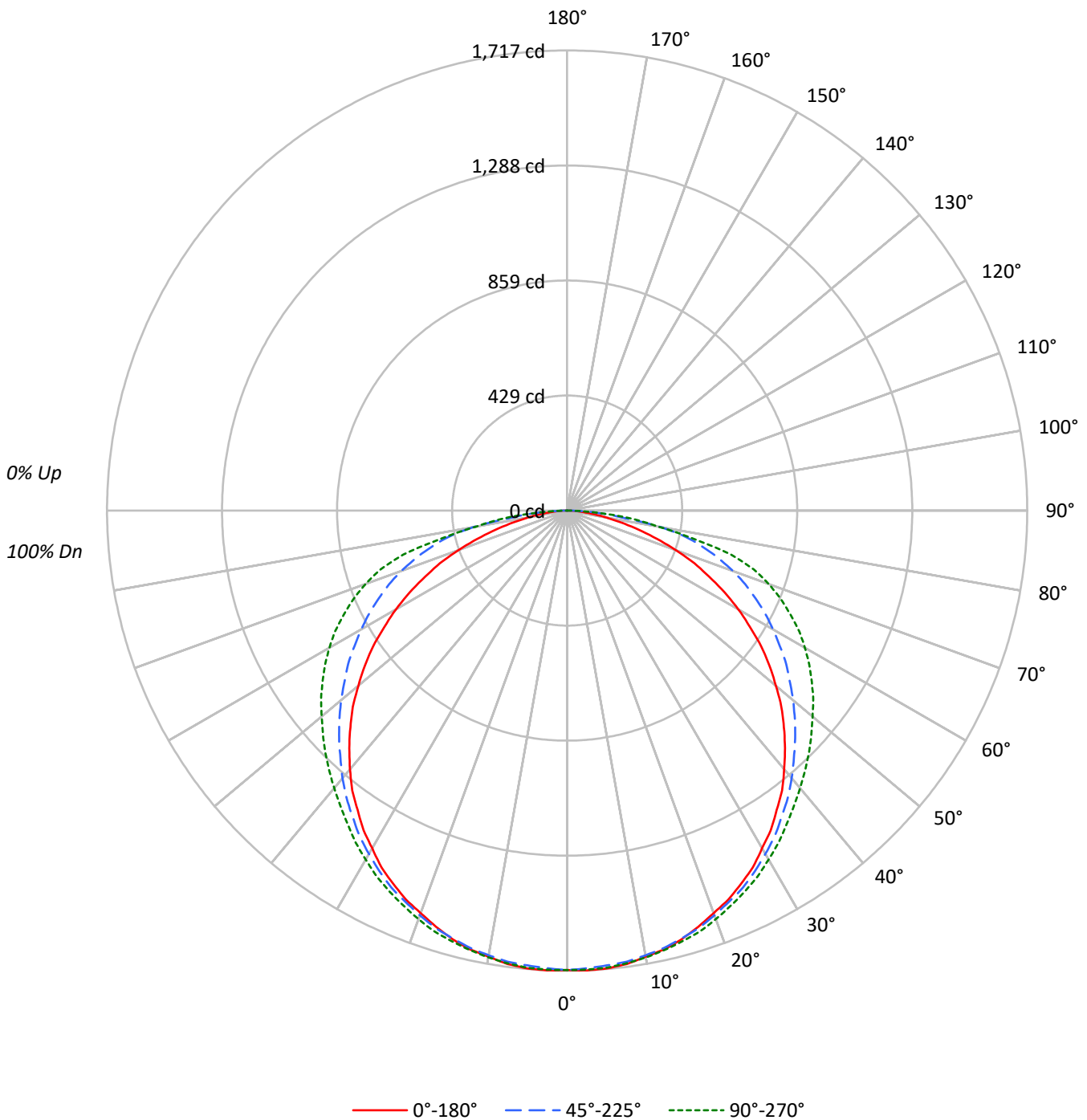
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2307	2307	2307
5°	2316	2301	2312
10°	2309	2302	2313
15°	2305	2302	2317
20°	2289	2300	2323
25°	2280	2305	2329
30°	2260	2298	2336
35°	2239	2292	2345
40°	2213	2289	2375
45°	2177	2290	2429
50°	2128	2304	2502
55°	2074	2341	2614
60°	1987	2387	2758
65°	1860	2471	2927
70°	1692	2585	3149
75°	1434	2727	3290
80°	1131	2745	2662
85°	835	2087	2337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.6	3.0
10°-20°	468.1	8.6
20°-30°	715.8	13.1
30°-40°	875.1	16.0
40°-50°	932.6	17.1
50°-60°	891.7	16.4
60°-70°	755.4	13.9
70°-80°	507.7	9.3
80°-90°	143.2	2.6
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°	1346.5	24.7
0°-40°	2221.6	40.7
0°-60°	4045.9	74.2
0°-90°	5452.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5452.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1715	1715	1715	1715	1715	
5°	1715	1712	1704	1712	1712	163
15°	1655	1655	1652	1666	1663	467
25°	1536	1542	1552	1566	1568	708
35°	1363	1374	1395	1422	1428	854
45°	1144	1163	1203	1255	1276	882
55°	884	917	998	1076	1114	788
65°	584	644	776	879	920	580
75°	276	376	525	614	633	295
85°	54	111	135	146	151	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1714.6	1714.6	1714.6	1714.6	1714.6
2.5°	1717.3	1717.3	1709.2	1714.6	1714.6
5°	1714.6	1711.9	1703.7	1711.9	1711.9
7.5°	1706.4	1703.7	1698.3	1706.4	1703.7
10°	1690.2	1690.2	1684.8	1692.9	1692.9
12.5°	1676.7	1674.0	1671.3	1682.1	1679.4
15°	1655.1	1655.1	1652.4	1665.9	1663.2
17.5°	1628.0	1630.7	1633.4	1644.2	1647.0
20°	1598.3	1603.7	1606.4	1622.6	1622.6
22.5°	1571.2	1573.9	1579.3	1595.6	1595.6
25°	1536.1	1541.5	1552.3	1565.8	1568.5
27.5°	1500.9	1503.6	1517.1	1536.1	1538.8
30°	1454.9	1463.1	1479.3	1500.9	1503.6
32.5°	1414.4	1422.5	1441.4	1463.1	1468.5
35°	1363.0	1373.8	1395.4	1422.5	1427.9
37.5°	1317.0	1325.1	1352.2	1381.9	1390.0
40°	1260.2	1276.5	1303.5	1338.7	1352.2
42.5°	1203.4	1219.7	1252.1	1298.1	1314.3
45°	1143.9	1162.9	1203.4	1254.8	1276.5
47.5°	1084.4	1106.1	1152.1	1211.6	1235.9
50°	1016.8	1043.9	1100.7	1168.3	1195.3
52.5°	951.9	984.4	1046.6	1122.3	1157.5
55°	884.3	916.8	997.9	1076.3	1114.2
57.5°	808.6	851.9	941.1	1030.4	1070.9
60°	738.3	778.9	887.0	984.4	1025.0
62.5°	662.6	716.7	832.9	935.7	976.3
65°	584.1	643.6	776.1	878.9	919.5
67.5°	513.8	578.7	719.4	822.1	862.7
70°	430.0	511.1	657.2	759.9	800.5
72.5°	351.6	440.8	592.3	692.3	730.2
75°	275.8	375.9	524.6	613.9	632.8
77.5°	205.5	311.0	454.3	492.2	478.7
80°	146.0	248.8	354.3	335.3	343.5
82.5°	94.7	189.3	219.1	248.8	256.9
85°	54.1	110.9	135.2	146.0	151.4
87.5°	24.3	40.6	54.1	54.1	51.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)