

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: P391823

Luminaire Tested: **24CZ2-90VHE-RDP-UNV-L930-CD1-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: P391823
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-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5023.6 lumens
Efficiency: N/A
Efficacy: 81.3 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

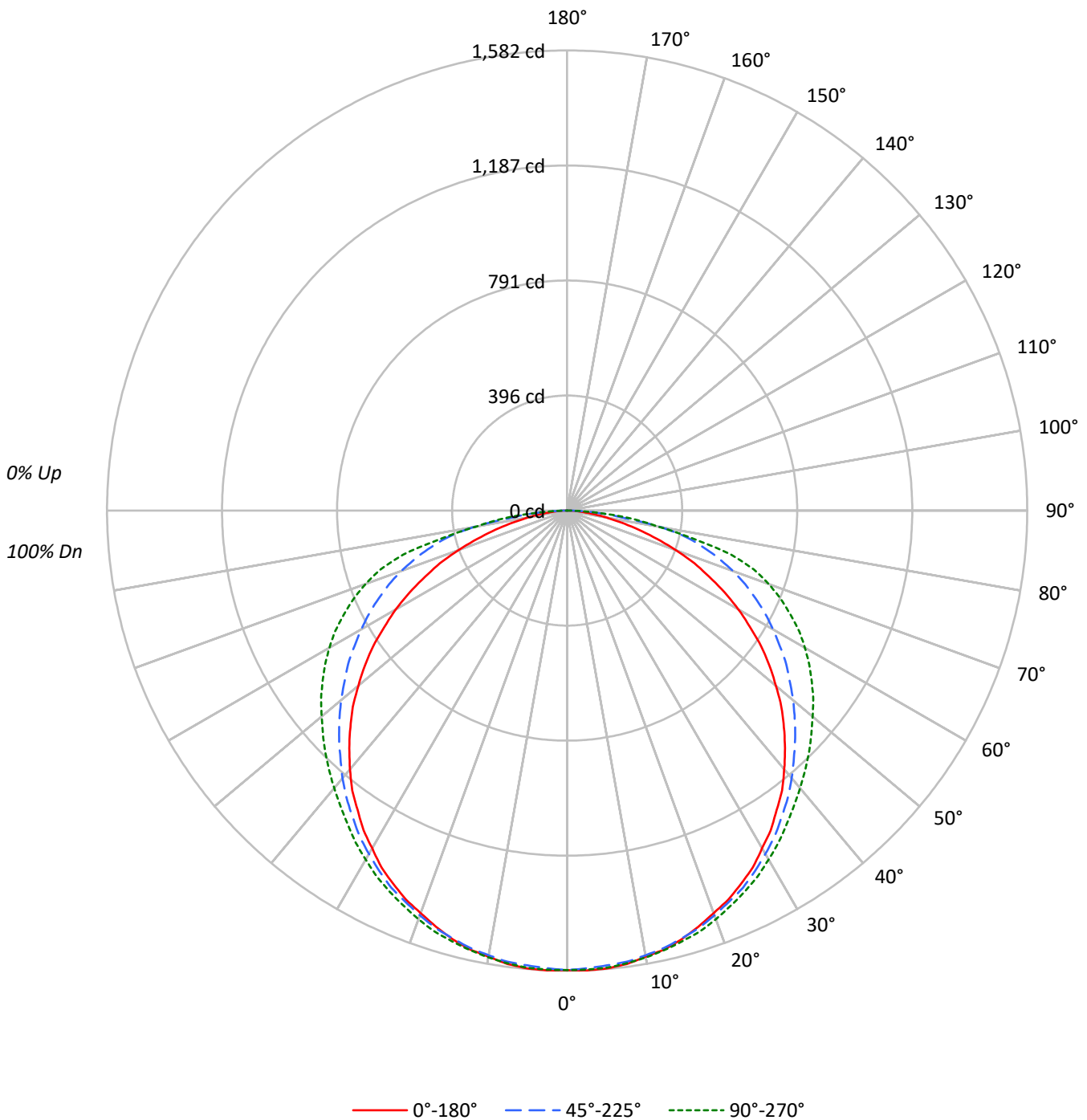
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2126	2126	2126
5°	2134	2120	2130
10°	2128	2121	2131
15°	2124	2121	2135
20°	2109	2119	2141
25°	2101	2123	2146
30°	2083	2118	2152
35°	2063	2112	2161
40°	2040	2109	2188
45°	2006	2110	2238
50°	1961	2123	2305
55°	1911	2157	2408
60°	1831	2199	2541
65°	1713	2277	2697
70°	1559	2382	2902
75°	1321	2513	3031
80°	1043	2529	2452
85°	769	1924	2154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	3.0
10°-20°	431.3	8.6
20°-30°	659.5	13.1
30°-40°	806.3	16.0
40°-50°	859.3	17.1
50°-60°	821.6	16.4
60°-70°	696.0	13.9
70°-80°	467.8	9.3
80°-90°	131.9	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°	1240.7	24.7
0°-40°	2046.9	40.7
0°-60°	3727.8	74.2
0°-90°	5023.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5023.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1580	1580	1580	1580	1580	
5°	1580	1577	1570	1577	1577	150
15°	1525	1525	1522	1535	1532	430
25°	1415	1420	1430	1443	1445	652
35°	1256	1266	1286	1311	1316	787
45°	1054	1072	1109	1156	1176	813
55°	815	845	920	992	1027	726
65°	538	593	715	810	847	534
75°	254	346	483	566	583	272
85°	50	102	125	135	140	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1579.8	1579.8	1579.8	1579.8	1579.8
2.5°	1582.3	1582.3	1574.8	1579.8	1579.8
5°	1579.8	1577.3	1569.8	1577.3	1577.3
7.5°	1572.3	1569.8	1564.8	1572.3	1569.8
10°	1557.4	1557.4	1552.4	1559.8	1559.8
12.5°	1544.9	1542.4	1539.9	1549.9	1547.4
15°	1525.0	1525.0	1522.5	1534.9	1532.4
17.5°	1500.0	1502.5	1505.0	1515.0	1517.5
20°	1472.6	1477.6	1480.1	1495.1	1495.1
22.5°	1447.7	1450.2	1455.2	1470.1	1470.1
25°	1415.3	1420.3	1430.3	1442.7	1445.2
27.5°	1382.9	1385.4	1397.9	1415.3	1417.8
30°	1340.6	1348.0	1363.0	1382.9	1385.4
32.5°	1303.2	1310.7	1328.1	1348.0	1353.0
35°	1255.8	1265.8	1285.8	1310.7	1315.7
37.5°	1213.5	1221.0	1245.9	1273.3	1280.8
40°	1161.2	1176.1	1201.0	1233.4	1245.9
42.5°	1108.8	1123.8	1153.7	1196.0	1211.0
45°	1054.0	1071.5	1108.8	1156.2	1176.1
47.5°	999.2	1019.1	1061.5	1116.3	1138.7
50°	936.9	961.8	1014.1	1076.4	1101.4
52.5°	877.1	907.0	964.3	1034.1	1066.5
55°	814.8	844.7	919.5	991.7	1026.6
57.5°	745.0	784.9	867.1	949.4	986.7
60°	680.3	717.6	817.3	907.0	944.4
62.5°	610.5	660.3	767.5	862.2	899.5
65°	538.2	593.0	715.1	809.8	847.2
67.5°	473.4	533.2	662.8	757.5	794.9
70°	396.2	470.9	605.5	700.2	737.6
72.5°	323.9	406.2	545.7	637.9	672.8
75°	254.2	346.4	483.4	565.6	583.1
77.5°	189.4	286.6	418.6	453.5	441.0
80°	134.6	229.2	326.4	309.0	316.5
82.5°	87.2	174.4	201.8	229.2	236.7
85°	49.8	102.2	124.6	134.6	139.5
87.5°	22.4	37.4	49.8	49.8	47.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)