

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: P391830

Luminaire Tested: **24CZ2-90VHE-RDP-UNV-L950-CD1-SDWPD1-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: P391830
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-SDWPD1-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: 5386.4 lumens
Efficiency: N/A
Efficacy: 87.2 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

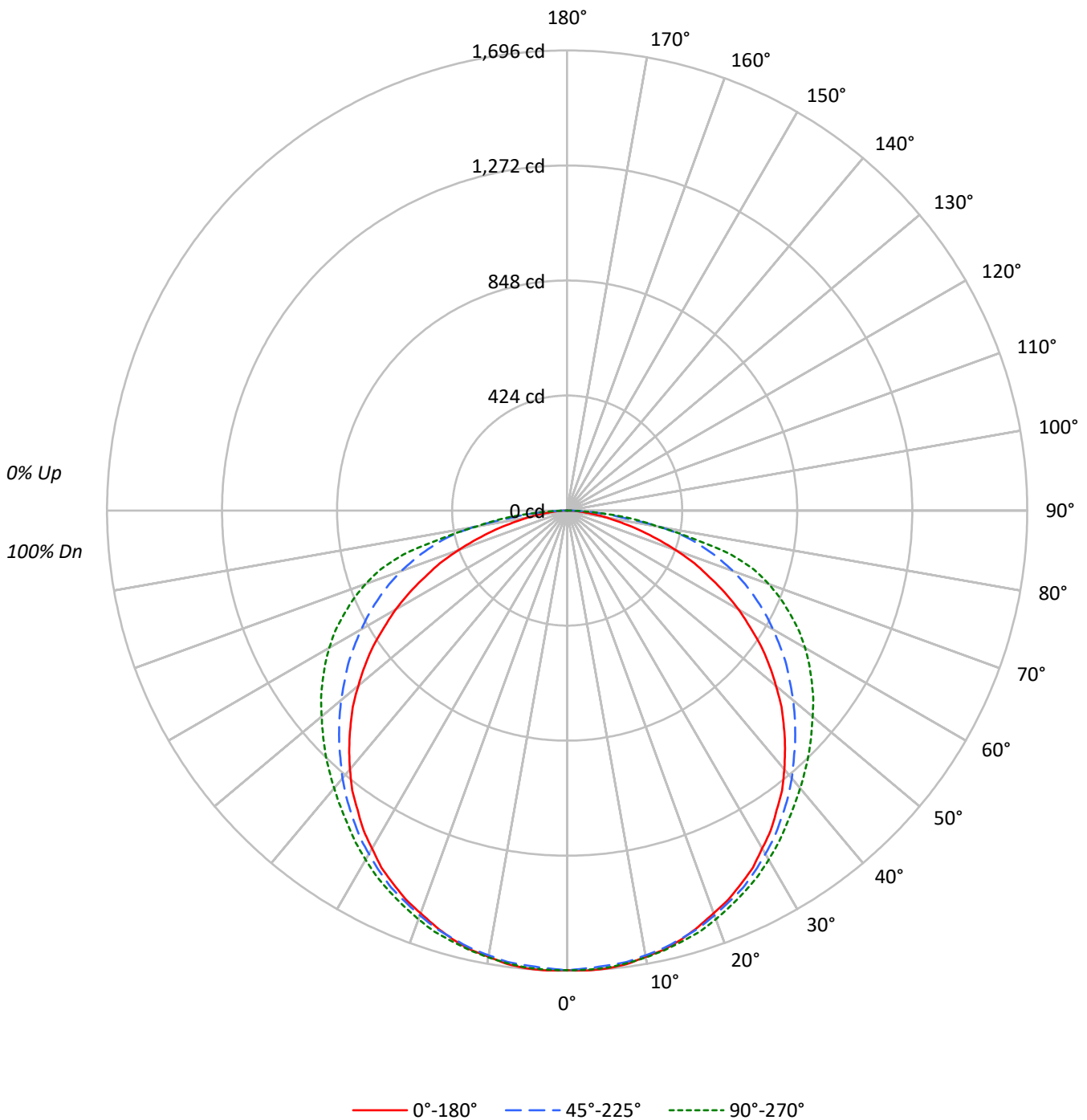
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2279	2279	2279
5°	2288	2273	2284
10°	2281	2274	2285
15°	2278	2274	2289
20°	2261	2272	2295
25°	2253	2277	2301
30°	2233	2270	2308
35°	2212	2264	2317
40°	2187	2262	2346
45°	2150	2262	2400
50°	2103	2276	2472
55°	2050	2313	2582
60°	1963	2358	2725
65°	1837	2441	2892
70°	1671	2554	3111
75°	1417	2694	3250
80°	1118	2712	2629
85°	824	2062	2309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	3.0
10°-20°	462.4	8.6
20°-30°	707.2	13.1
30°-40°	864.5	16.0
40°-50°	921.4	17.1
50°-60°	881.0	16.4
60°-70°	746.3	13.9
70°-80°	501.6	9.3
80°-90°	141.5	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°	1330.3	24.7
0°-40°	2194.8	40.7
0°-60°	3997.1	74.2
0°-90°	5386.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5386.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1694	1694	1694	1694	1694	
5°	1694	1691	1683	1691	1691	161
15°	1635	1635	1632	1646	1643	461
25°	1518	1523	1534	1547	1550	699
35°	1346	1357	1379	1405	1411	844
45°	1130	1149	1189	1240	1261	872
55°	874	906	986	1063	1101	778
65°	577	636	767	868	908	573
75°	272	371	518	606	625	292
85°	53	110	134	144	150	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1693.9	1693.9	1693.9	1693.9	1693.9
2.5°	1696.5	1696.5	1688.5	1693.9	1693.9
5°	1693.9	1691.2	1683.2	1691.2	1691.2
7.5°	1685.9	1683.2	1677.8	1685.9	1683.2
10°	1669.8	1669.8	1664.5	1672.5	1672.5
12.5°	1656.5	1653.8	1651.1	1661.8	1659.1
15°	1635.1	1635.1	1632.4	1645.8	1643.1
17.5°	1608.4	1611.0	1613.7	1624.4	1627.1
20°	1579.0	1584.3	1587.0	1603.0	1603.0
22.5°	1552.3	1554.9	1560.3	1576.3	1576.3
25°	1517.5	1522.9	1533.6	1546.9	1549.6
27.5°	1482.8	1485.5	1498.8	1517.5	1520.2
30°	1437.4	1445.4	1461.4	1482.8	1485.5
32.5°	1397.3	1405.3	1424.0	1445.4	1450.7
35°	1346.5	1357.2	1378.6	1405.3	1410.7
37.5°	1301.1	1309.1	1335.9	1365.2	1373.3
40°	1245.0	1261.1	1287.8	1322.5	1335.9
42.5°	1188.9	1204.9	1237.0	1282.4	1298.5
45°	1130.1	1148.8	1188.9	1239.7	1261.1
47.5°	1071.4	1092.7	1138.2	1196.9	1221.0
50°	1004.6	1031.3	1087.4	1154.2	1180.9
52.5°	940.4	972.5	1034.0	1108.8	1143.5
55°	873.7	905.7	985.9	1063.3	1100.7
57.5°	798.8	841.6	929.8	1017.9	1058.0
60°	729.4	769.5	876.3	972.5	1012.6
62.5°	654.6	708.0	822.9	924.4	964.5
65°	577.1	635.9	766.8	868.3	908.4
67.5°	507.6	571.7	710.7	812.2	852.3
70°	424.8	505.0	649.2	750.8	790.8
72.5°	347.3	435.5	585.1	684.0	721.4
75°	272.5	371.4	518.3	606.5	625.2
77.5°	203.1	307.2	448.8	486.3	472.9
80°	144.3	245.8	350.0	331.3	339.3
82.5°	93.5	187.0	216.4	245.8	253.8
85°	53.4	109.5	133.6	144.3	149.6
87.5°	24.0	40.1	53.4	53.4	50.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)