

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: P388855

Luminaire Tested: **24CZ2-50VHE-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: P388855
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4534.6 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

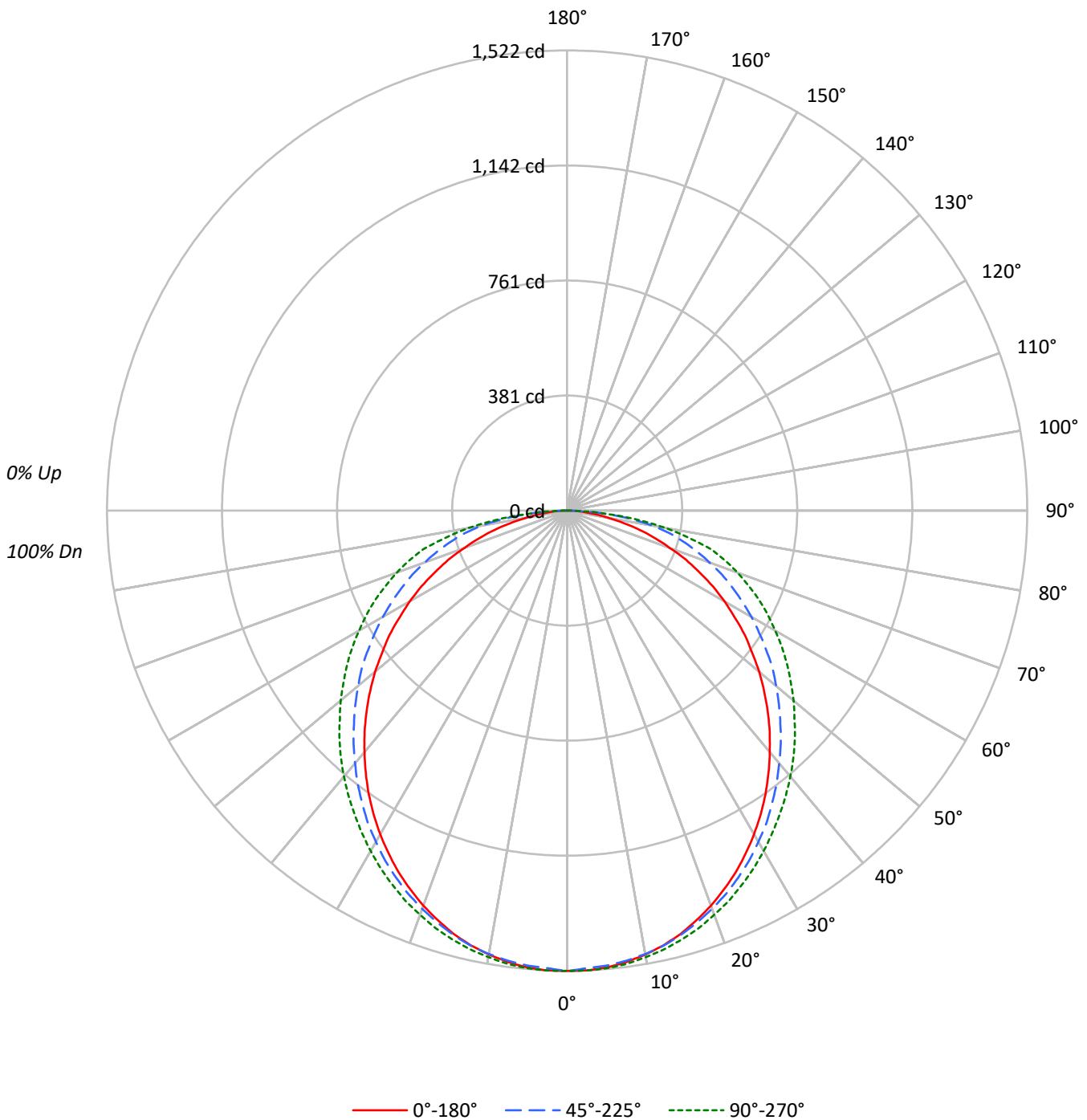
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2049	2049	2049
5°	2048	2040	2052
10°	2037	2035	2049
15°	2020	2024	2045
20°	1991	2007	2037
25°	1959	1988	2029
30°	1921	1966	2020
35°	1879	1941	2014
40°	1831	1917	2018
45°	1785	1898	2027
50°	1736	1888	2047
55°	1683	1885	2084
60°	1617	1894	2138
65°	1532	1922	2231
70°	1423	1971	2358
75°	1298	2069	2557
80°	1067	2228	2556
85°	818	2056	2197



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	3.2
10°-20°	411.1	9.1
20°-30°	618.6	13.6
30°-40°	741.3	16.3
40°-50°	772.5	17.0
50°-60°	718.8	15.9
60°-70°	592.0	13.1
70°-80°	403.2	8.9
80°-90°	133.1	2.9
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°	1173.7	25.9
0°-40°	1915.0	42.2
0°-60°	3406.3	75.1
0°-90°	4534.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4534.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1516	1516	1510	1518	1519	144
15°	1450	1451	1453	1466	1468	408
25°	1320	1326	1339	1362	1367	608
35°	1144	1158	1182	1214	1226	715
45°	938	958	997	1047	1065	724
55°	717	742	804	867	888	639
65°	481	522	604	675	701	478
75°	250	306	398	469	492	263
85°	53	103	133	142	142	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1522.5	1522.5	1522.5	1522.5	1522.5
2.5°	1522.5	1522.5	1514.9	1522.5	1522.5
5°	1516.4	1516.4	1510.4	1517.9	1519.4
7.5°	1505.8	1507.3	1501.3	1510.4	1511.9
10°	1490.7	1492.2	1489.2	1498.3	1499.8
12.5°	1472.5	1474.0	1474.0	1484.6	1486.2
15°	1449.8	1451.3	1452.9	1466.5	1468.0
17.5°	1421.1	1425.6	1428.6	1445.3	1448.3
20°	1390.8	1395.4	1401.4	1419.6	1422.6
22.5°	1356.0	1362.1	1372.6	1392.3	1396.9
25°	1319.7	1325.7	1339.4	1362.1	1366.6
27.5°	1278.8	1287.9	1304.5	1328.8	1334.8
30°	1236.4	1245.5	1265.2	1290.9	1300.0
32.5°	1191.0	1203.1	1225.9	1254.6	1263.7
35°	1144.1	1157.7	1182.0	1213.7	1225.9
37.5°	1094.2	1109.3	1138.1	1172.9	1188.0
40°	1042.7	1060.9	1091.2	1132.0	1148.7
42.5°	991.3	1007.9	1045.8	1089.6	1107.8
45°	938.3	958.0	997.3	1047.3	1065.4
47.5°	883.8	903.5	950.4	1003.4	1020.0
50°	829.3	849.0	902.0	958.0	977.7
52.5°	770.3	796.0	856.6	912.6	932.3
55°	717.3	741.6	803.6	867.2	888.4
57.5°	656.8	685.6	753.7	820.3	843.0
60°	600.8	631.1	703.7	771.8	794.5
62.5°	543.3	576.6	653.8	723.4	749.1
65°	481.3	522.1	603.8	675.0	700.7
67.5°	425.3	467.6	553.9	626.5	649.2
70°	361.7	413.2	500.9	573.6	599.3
72.5°	307.2	358.7	451.0	522.1	547.8
75°	249.7	305.7	398.0	469.2	491.9
77.5°	192.2	254.3	346.6	401.0	408.6
80°	137.7	202.8	287.5	319.3	329.9
82.5°	96.9	155.9	211.9	233.1	239.1
85°	53.0	102.9	133.2	142.3	142.3
87.5°	22.7	43.9	53.0	54.5	56.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)