

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: P275991

Luminaire Tested: **24CZ2-50HE-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275991  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-UNV-L93050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4440.8 lumens  
Efficiency: N/A  
Efficacy: 119.3 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

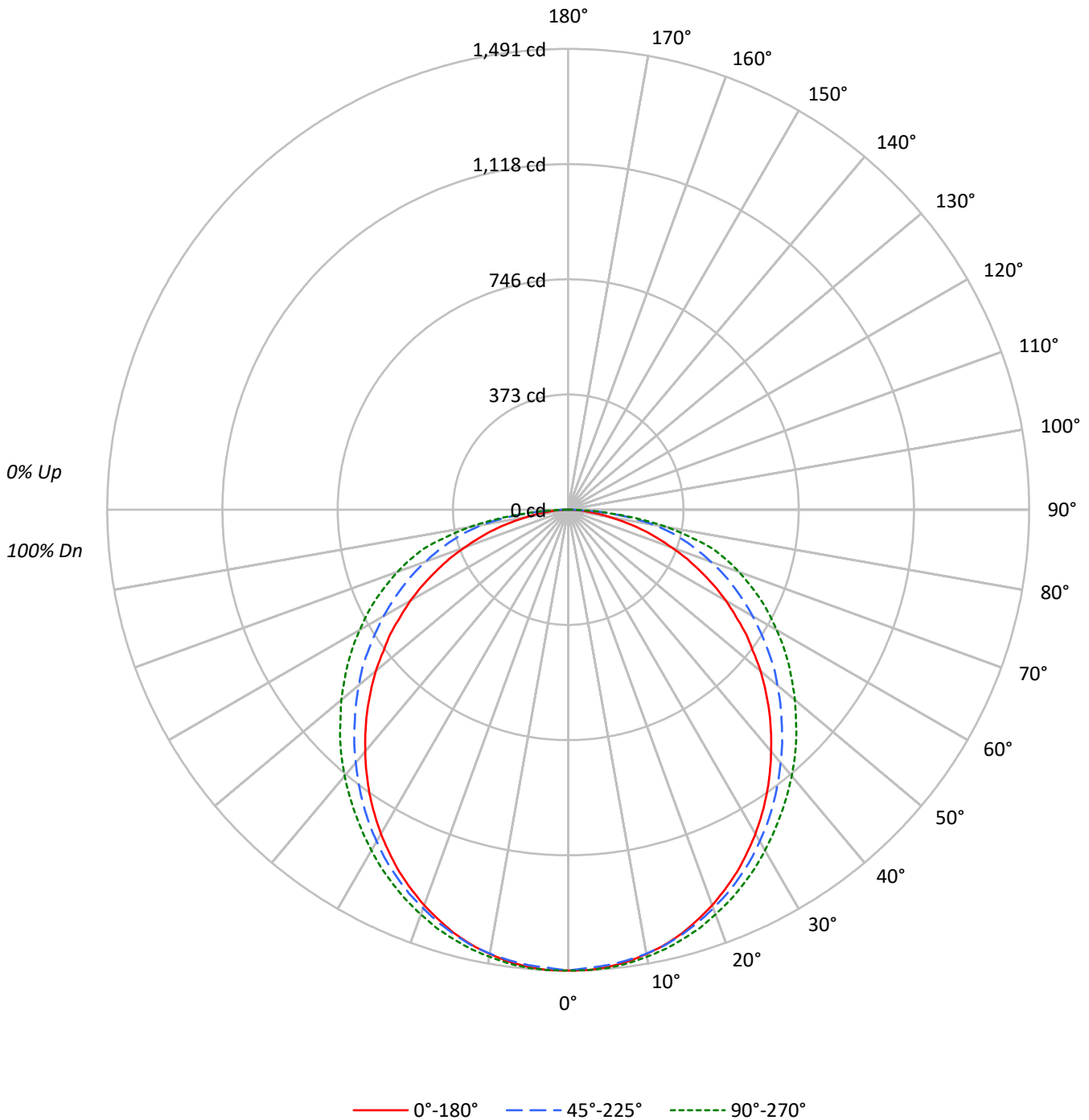
Input Watts (W): 37.211904  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2006	2006	2006
5°	2006	1998	2010
10°	1995	1993	2007
15°	1978	1982	2003
20°	1950	1965	1995
25°	1919	1947	1987
30°	1881	1925	1978
35°	1840	1901	1972
40°	1794	1877	1976
45°	1748	1858	1985
50°	1700	1849	2004
55°	1648	1846	2041
60°	1583	1855	2094
65°	1500	1883	2185
70°	1393	1930	2309
75°	1271	2026	2504
80°	1045	2182	2503
85°	801	2013	2150



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.0	3.2
10°-20°	402.6	9.1
20°-30°	605.8	13.6
30°-40°	726.0	16.3
40°-50°	756.6	17.0
50°-60°	703.9	15.9
60°-70°	579.7	13.1
70°-80°	394.8	8.9
80°-90°	130.4	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°	1149.4	25.9
0°-40°	1875.4	42.2
0°-60°	3335.9	75.1
0°-90°	4440.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4440.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1491	1491	1491	1491	1491	
5°	1485	1485	1479	1486	1488	141
15°	1420	1421	1423	1436	1438	400
25°	1292	1298	1312	1334	1338	595
35°	1120	1134	1158	1189	1200	700
45°	919	938	977	1026	1043	709
55°	702	726	787	849	870	626
65°	471	511	591	661	686	468
75°	244	299	390	459	482	258
85°	52	101	130	139	139	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1491.0	1491.0	1491.0	1491.0	1491.0
2.5°	1491.0	1491.0	1483.6	1491.0	1491.0
5°	1485.1	1485.1	1479.1	1486.5	1488.0
7.5°	1474.7	1476.2	1470.2	1479.1	1480.6
10°	1459.9	1461.3	1458.4	1467.3	1468.7
12.5°	1442.1	1443.6	1443.6	1453.9	1455.4
15°	1419.8	1421.3	1422.8	1436.1	1437.6
17.5°	1391.7	1396.1	1399.1	1415.4	1418.4
20°	1362.0	1366.5	1372.4	1390.2	1393.2
22.5°	1328.0	1333.9	1344.3	1363.5	1368.0
25°	1292.4	1298.3	1311.6	1333.9	1338.3
27.5°	1252.4	1261.3	1277.6	1301.3	1307.2
30°	1210.9	1219.8	1239.0	1264.2	1273.1
32.5°	1166.4	1178.3	1200.5	1228.7	1237.5
35°	1120.5	1133.8	1157.5	1188.6	1200.5
37.5°	1071.5	1086.4	1114.5	1148.6	1163.4
40°	1021.2	1038.9	1068.6	1108.6	1124.9
42.5°	970.8	987.1	1024.1	1067.1	1084.9
45°	918.9	938.2	976.7	1025.6	1043.4
47.5°	865.5	884.8	930.8	982.6	998.9
50°	812.2	831.5	883.3	938.2	957.4
52.5°	754.4	779.6	838.9	893.7	913.0
55°	702.5	726.2	787.0	849.2	870.0
57.5°	643.2	671.4	738.1	803.3	825.5
60°	588.4	618.0	689.2	755.9	778.1
62.5°	532.1	564.7	640.3	708.4	733.6
65°	471.3	511.3	591.4	661.0	686.2
67.5°	416.5	458.0	542.4	613.6	635.8
70°	354.2	404.6	490.6	561.7	586.9
72.5°	300.9	351.3	441.7	511.3	536.5
75°	244.5	299.4	389.8	459.4	481.7
77.5°	188.2	249.0	339.4	392.8	400.2
80°	134.9	198.6	281.6	312.7	323.1
82.5°	94.9	152.7	207.5	228.2	234.2
85°	51.9	100.8	130.4	139.3	139.3
87.5°	22.2	43.0	51.9	53.4	54.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)