

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: P388870

Luminaire Tested: **24CZ2-55VHE-UNV-L930-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: P388870  
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: 24CZ2-55VHE-UNV-L930-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4538.6 lumens  
Efficiency: N/A  
Efficacy: 125.7 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

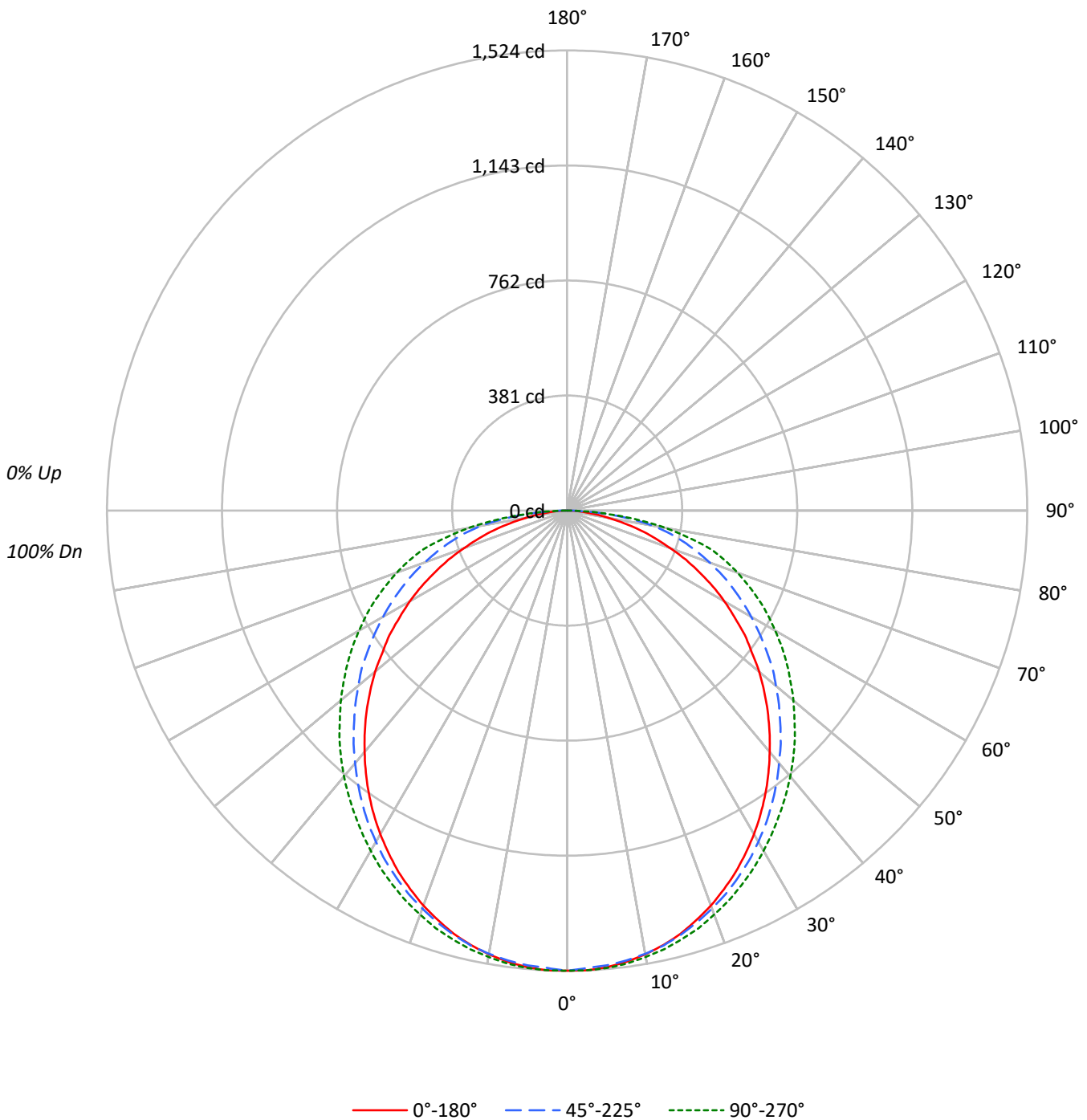
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2050	2050	2050
5°	2050	2042	2054
10°	2038	2036	2051
15°	2021	2025	2047
20°	1993	2008	2039
25°	1961	1990	2031
30°	1923	1967	2022
35°	1881	1943	2015
40°	1833	1918	2019
45°	1787	1899	2029
50°	1738	1890	2048
55°	1684	1887	2086
60°	1618	1895	2140
65°	1534	1924	2233
70°	1424	1972	2360
75°	1299	2071	2559
80°	1068	2230	2559
85°	818	2058	2198



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.1	3.2
10°-20°	411.4	9.1
20°-30°	619.2	13.6
30°-40°	742.0	16.3
40°-50°	773.2	17.0
50°-60°	719.4	15.9
60°-70°	592.5	13.1
70°-80°	403.5	8.9
80°-90°	133.2	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°	1174.7	25.9
0°-40°	1916.7	42.2
0°-60°	3409.3	75.1
0°-90°	4538.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4538.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1524	1524	1524	1524	1524	
5°	1518	1518	1512	1519	1521	144
15°	1451	1453	1454	1468	1469	409
25°	1321	1327	1340	1363	1368	608
35°	1145	1159	1183	1215	1227	716
45°	939	959	998	1048	1066	724
55°	718	742	804	868	889	640
65°	482	523	604	676	701	478
75°	250	306	398	470	492	264
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°	1523.8	1523.8	1523.8	1523.8	1523.8
2.5°	1523.8	1523.8	1516.2	1523.8	1523.8
5°	1517.8	1517.8	1511.7	1519.3	1520.8
7.5°	1507.2	1508.7	1502.6	1511.7	1513.2
10°	1492.0	1493.5	1490.5	1499.6	1501.1
12.5°	1473.8	1475.3	1475.3	1486.0	1487.5
15°	1451.1	1452.6	1454.1	1467.8	1469.3
17.5°	1422.3	1426.9	1429.9	1446.6	1449.6
20°	1392.0	1396.6	1402.6	1420.8	1423.8
22.5°	1357.2	1363.3	1373.9	1393.6	1398.1
25°	1320.8	1326.9	1340.5	1363.3	1367.8
27.5°	1279.9	1289.0	1305.7	1329.9	1336.0
30°	1237.5	1246.6	1266.3	1292.1	1301.2
32.5°	1192.1	1204.2	1226.9	1255.7	1264.8
35°	1145.1	1158.8	1183.0	1214.8	1226.9
37.5°	1095.2	1110.3	1139.1	1173.9	1189.1
40°	1043.6	1061.8	1092.1	1133.0	1149.7
42.5°	992.1	1008.8	1046.7	1090.6	1108.8
45°	939.1	958.8	998.2	1048.2	1066.4
47.5°	884.6	904.3	951.3	1004.3	1020.9
50°	830.1	849.8	902.8	958.8	978.5
52.5°	771.0	796.7	857.3	913.4	933.1
55°	718.0	742.2	804.3	867.9	889.1
57.5°	657.4	686.2	754.3	821.0	843.7
60°	601.3	631.6	704.3	772.5	795.2
62.5°	543.8	577.1	654.4	724.0	749.8
65°	481.7	522.6	604.4	675.6	701.3
67.5°	425.6	468.1	554.4	627.1	649.8
70°	362.0	413.5	501.4	574.1	599.8
72.5°	307.5	359.0	451.4	522.6	548.3
75°	249.9	306.0	398.4	469.6	492.3
77.5°	192.4	254.5	346.9	401.4	409.0
80°	137.8	203.0	287.8	319.6	330.2
82.5°	96.9	156.0	212.1	233.3	239.3
85°	53.0	103.0	133.3	142.4	142.4
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)