

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: P389805

Luminaire Tested: **24CZ2-55VHE-S-UNV-L930-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: P389805  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55VHE-S-UNV-L930-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4711.4 lumens  
Efficiency: N/A  
Efficacy: 130.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

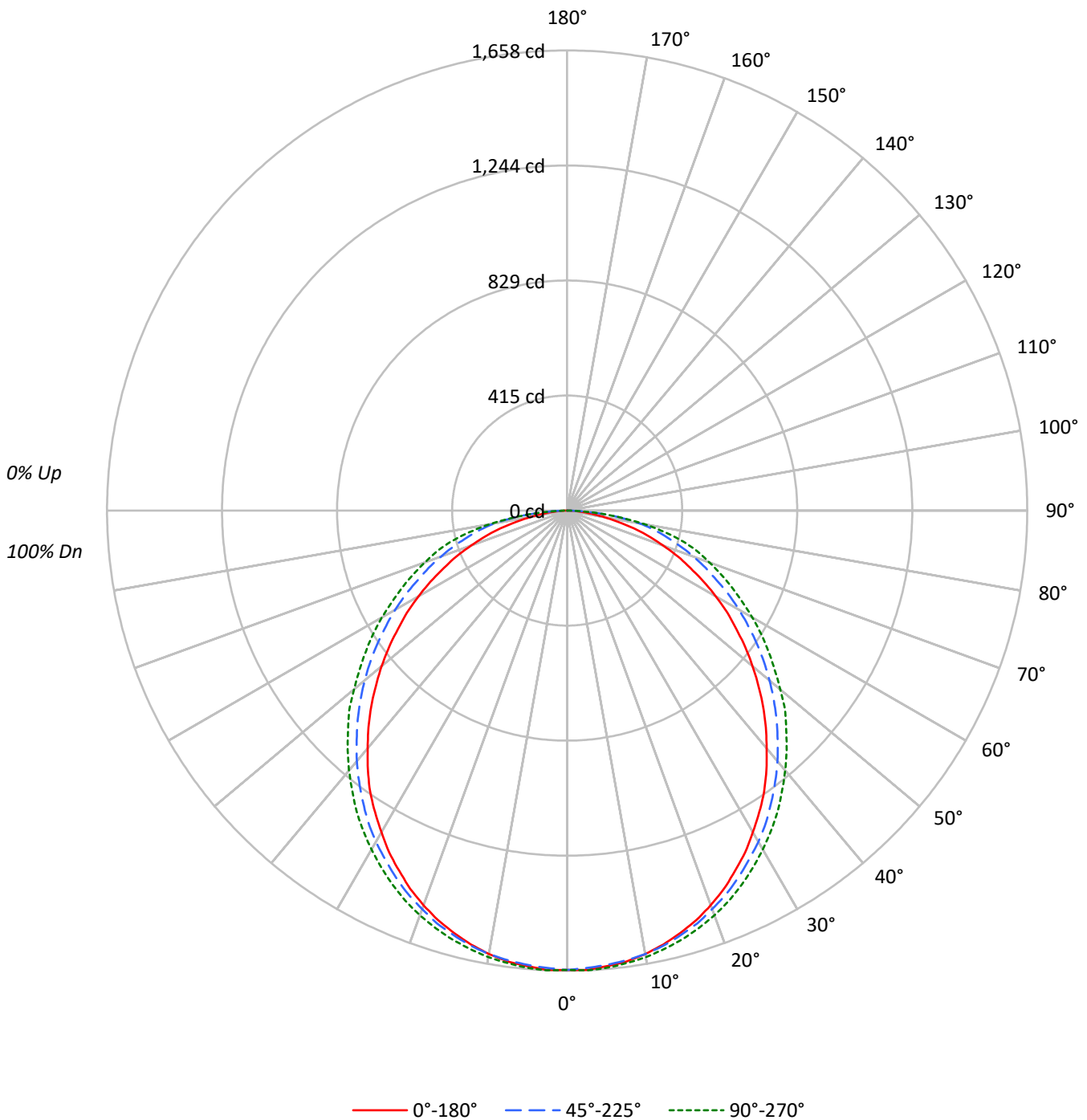
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2227	2227	2227
5°	2225	2219	2233
10°	2216	2216	2233
15°	2195	2205	2228
20°	2166	2188	2222
25°	2126	2166	2208
30°	2079	2141	2190
35°	2033	2107	2173
40°	1963	2071	2148
45°	1899	2030	2124
50°	1826	1992	2099
55°	1745	1955	2078
60°	1663	1925	2074
65°	1558	1891	2087
70°	1442	1902	2143
75°	1291	1937	2264
80°	1044	2053	2214
85°	786	1802	1755



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.7	3.3
10°-20°	447.7	9.5
20°-30°	673.0	14.3
30°-40°	801.7	17.0
40°-50°	820.5	17.4
50°-60°	738.7	15.7
60°-70°	580.1	12.3
70°-80°	376.5	8.0
80°-90°	116.4	2.5
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°	1277.5	27.1
0°-40°	2079.2	44.1
0°-60°	3638.3	77.2
0°-90°	4711.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4711.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1655	1655	1655	1655	1655	
5°	1648	1651	1643	1652	1654	157
15°	1576	1580	1583	1597	1600	444
25°	1432	1444	1459	1483	1488	660
35°	1238	1253	1282	1314	1323	772
45°	998	1022	1067	1107	1116	770
55°	744	777	834	877	886	667
65°	489	527	594	644	656	487
75°	248	296	373	424	436	263
85°	51	94	117	114	114	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1655.1	1655.1	1655.1	1655.1	1655.1
2.5°	1656.6	1656.6	1649.2	1656.6	1658.1
5°	1647.7	1650.7	1643.2	1652.2	1653.6
7.5°	1638.7	1638.7	1634.2	1643.2	1644.7
10°	1622.2	1623.7	1622.2	1632.7	1634.2
12.5°	1601.3	1604.3	1605.8	1616.2	1617.7
15°	1575.8	1580.3	1583.3	1596.8	1599.8
17.5°	1547.4	1551.9	1559.4	1574.3	1577.3
20°	1513.0	1519.0	1527.9	1547.4	1551.9
22.5°	1475.6	1481.5	1496.5	1514.5	1522.0
25°	1432.2	1444.1	1459.1	1483.0	1487.5
27.5°	1388.8	1399.2	1418.7	1444.1	1450.1
30°	1337.9	1354.3	1378.3	1403.7	1409.7
32.5°	1288.5	1305.0	1333.4	1360.3	1367.8
35°	1237.6	1252.6	1282.5	1313.9	1322.9
37.5°	1179.3	1198.7	1231.6	1263.1	1272.0
40°	1117.9	1141.8	1179.3	1212.2	1222.7
42.5°	1059.5	1085.0	1122.4	1158.3	1170.3
45°	998.2	1022.1	1067.0	1107.4	1116.4
47.5°	935.3	962.3	1010.1	1050.6	1065.5
50°	872.5	900.9	951.8	993.7	1002.7
52.5°	809.6	839.5	893.4	938.3	942.8
55°	743.8	776.7	833.6	877.0	885.9
57.5°	683.9	712.3	773.7	818.6	829.1
60°	618.1	649.5	715.3	757.2	770.7
62.5°	555.2	588.1	657.0	698.9	710.8
65°	489.4	526.8	594.1	643.5	655.5
67.5°	432.5	468.4	540.2	588.1	600.1
70°	366.6	407.1	483.4	532.8	544.7
72.5°	309.8	351.7	428.0	475.9	493.8
75°	248.4	296.3	372.6	423.5	435.5
77.5°	188.6	243.9	321.8	360.7	360.7
80°	134.7	193.1	264.9	282.8	285.8
82.5°	88.3	145.2	196.0	194.5	194.5
85°	50.9	94.3	116.7	113.7	113.7
87.5°	19.5	38.9	41.9	41.9	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)