

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: P388807

Luminaire Tested: **24CZ2-40VHE-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: P388807  
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: 24CZ2-40VHE-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: 3619.4 lumens  
Efficiency: N/A  
Efficacy: 138.1 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

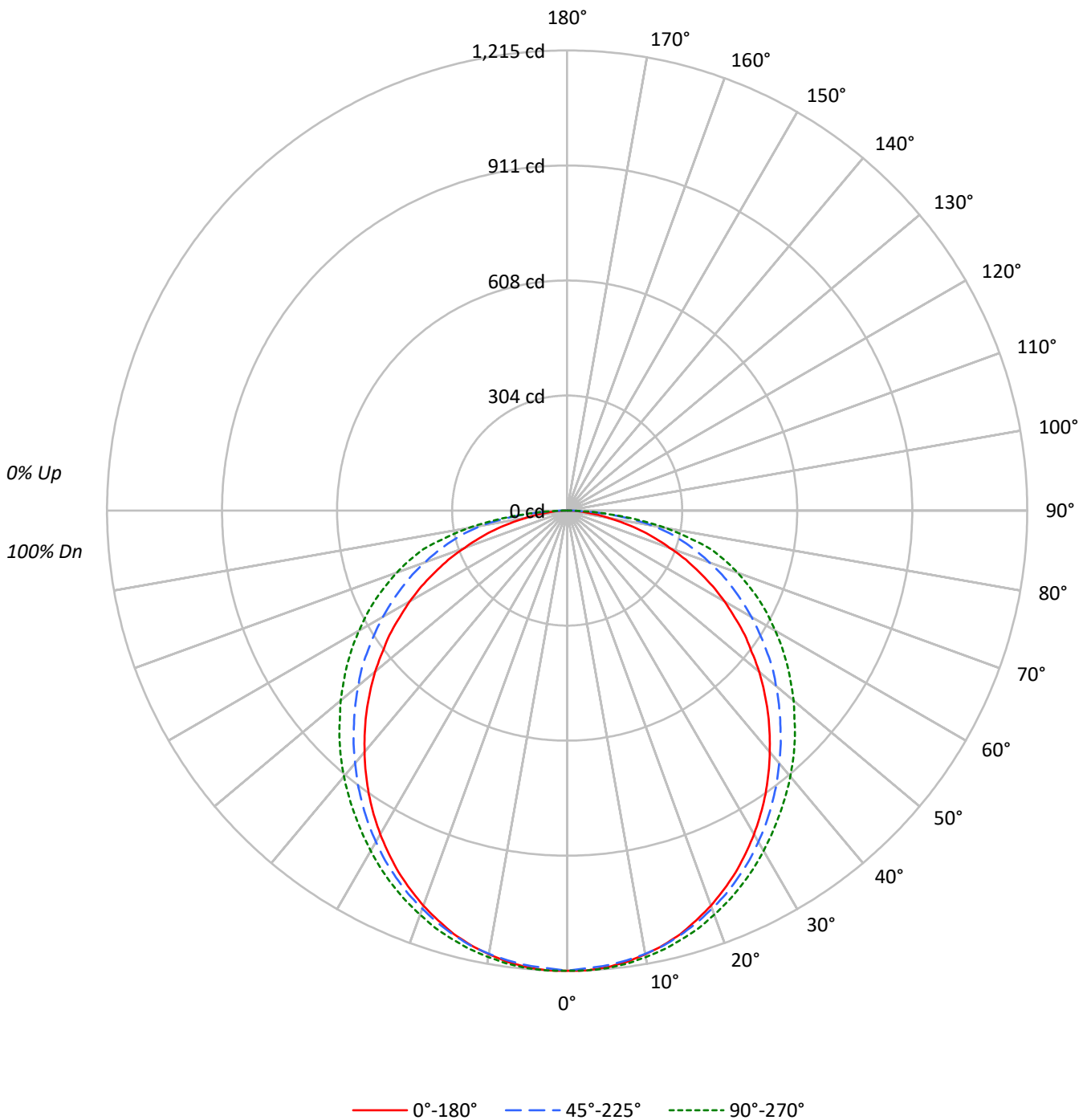
Input Watts (W): 26.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25

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

	0°	45°	90°
0°	1635	1635	1635
5°	1635	1628	1638
10°	1626	1624	1636
15°	1612	1615	1632
20°	1589	1602	1626
25°	1564	1587	1619
30°	1533	1569	1612
35°	1500	1550	1607
40°	1462	1530	1610
45°	1425	1515	1618
50°	1386	1507	1633
55°	1343	1505	1663
60°	1291	1512	1707
65°	1223	1535	1781
70°	1136	1573	1882
75°	1036	1652	2041
80°	852	1778	2040
85°	653	1641	1752



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.9	3.2
10°-20°	328.1	9.1
20°-30°	493.8	13.6
30°-40°	591.7	16.3
40°-50°	616.6	17.0
50°-60°	573.7	15.9
60°-70°	472.5	13.1
70°-80°	321.8	8.9
80°-90°	106.2	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°	936.8	25.9
0°-40°	1528.5	42.2
0°-60°	2718.8	75.1
0°-90°	3619.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3619.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1210	1210	1206	1212	1213	115
15°	1157	1158	1160	1170	1172	326
25°	1053	1058	1069	1087	1091	485
35°	913	924	943	969	978	571
45°	749	765	796	836	850	578
55°	573	592	641	692	709	510
65°	384	417	482	539	559	381
75°	199	244	318	374	393	210
85°	42	82	106	114	114	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1215.2	1215.2	1215.2	1215.2	1215.2
2.5°	1215.2	1215.2	1209.2	1215.2	1215.2
5°	1210.4	1210.4	1205.5	1211.6	1212.8
7.5°	1201.9	1203.1	1198.3	1205.5	1206.7
10°	1189.8	1191.0	1188.6	1195.9	1197.1
12.5°	1175.3	1176.5	1176.5	1185.0	1186.2
15°	1157.2	1158.4	1159.6	1170.5	1171.7
17.5°	1134.3	1137.9	1140.3	1153.6	1156.0
20°	1110.1	1113.7	1118.6	1133.1	1135.5
22.5°	1082.3	1087.2	1095.6	1111.3	1114.9
25°	1053.3	1058.2	1069.0	1087.2	1090.8
27.5°	1020.7	1028.0	1041.3	1060.6	1065.4
30°	986.9	994.1	1009.8	1030.4	1037.6
32.5°	950.7	960.3	978.4	1001.4	1008.6
35°	913.2	924.1	943.4	968.8	978.4
37.5°	873.4	885.4	908.4	936.2	948.2
40°	832.3	846.8	870.9	903.5	916.8
42.5°	791.2	804.5	834.7	869.7	884.2
45°	748.9	764.6	796.0	835.9	850.4
47.5°	705.4	721.1	758.6	800.9	814.2
50°	662.0	677.7	719.9	764.6	780.3
52.5°	614.8	635.4	683.7	728.4	744.1
55°	572.6	591.9	641.4	692.2	709.1
57.5°	524.3	547.2	601.6	654.7	672.8
60°	479.6	503.7	561.7	616.1	634.2
62.5°	433.7	460.2	521.8	577.4	597.9
65°	384.1	416.7	482.0	538.7	559.3
67.5°	339.4	373.3	442.1	500.1	518.2
70°	288.7	329.8	399.8	457.8	478.3
72.5°	245.2	286.3	360.0	416.7	437.3
75°	199.3	244.0	317.7	374.5	392.6
77.5°	153.4	202.9	276.6	320.1	326.1
80°	109.9	161.9	229.5	254.9	263.3
82.5°	77.3	124.4	169.1	186.0	190.9
85°	42.3	82.1	106.3	113.5	113.5
87.5°	18.1	35.0	42.3	43.5	44.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)