

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: P388760

Luminaire Tested: **24CZ2-30VHE-UNV-L950-CD1-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: P388760
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: 24CZ2-30VHE-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

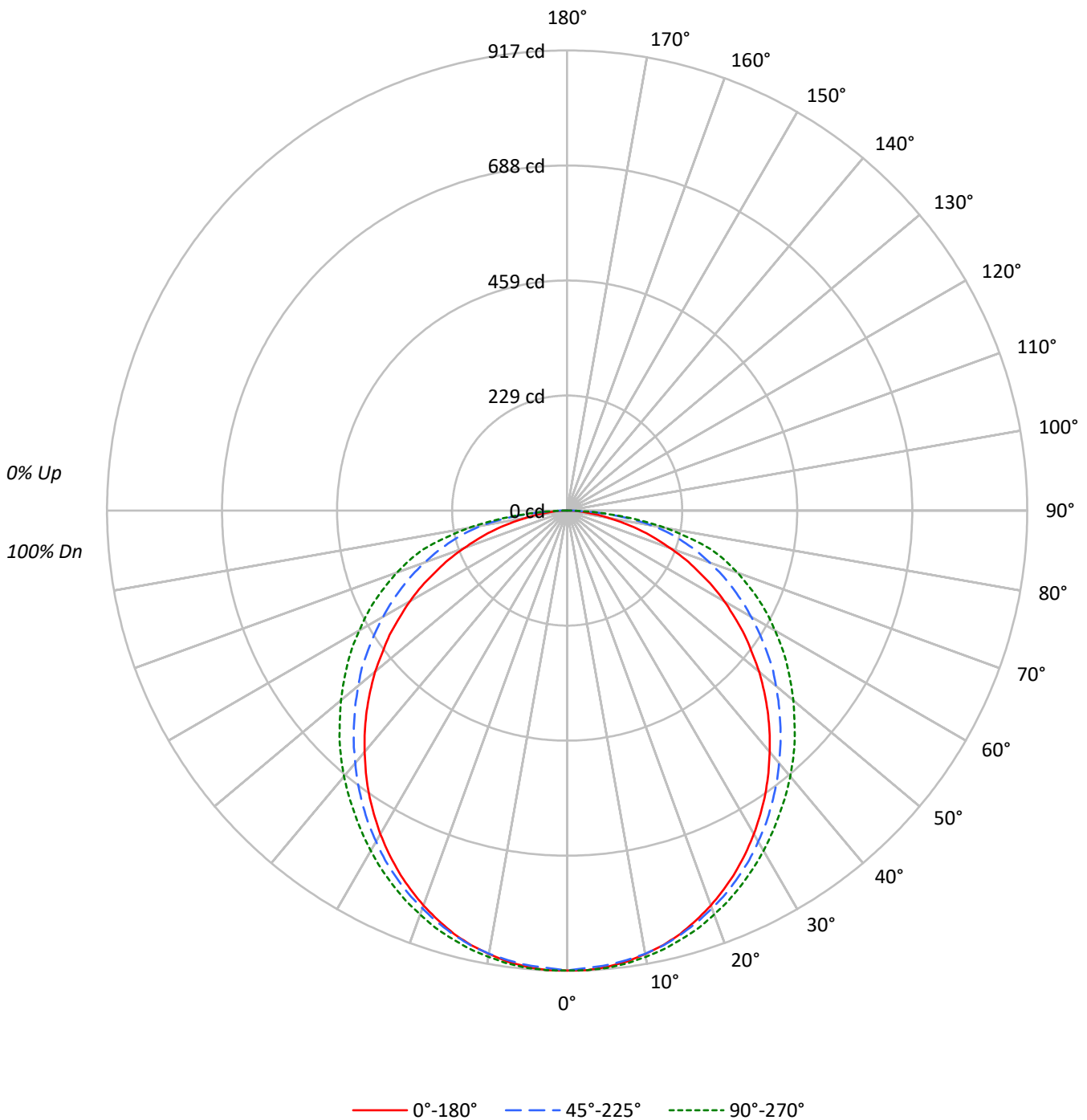
Lumens per Lamp: N/A
Luminaire Lumens: 2730.1 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20.4
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



TEST NUMBER: P388760
CATALOG NUMBER: 24CZ2-30VHE-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388760

CATALOG NUMBER: 24CZ2-30VHE-UNV-L950-CD1-U

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°	1233	1233	1233
5°	1233	1228	1236
10°	1226	1225	1234
15°	1216	1218	1231
20°	1199	1208	1226
25°	1180	1197	1222
30°	1157	1183	1216
35°	1131	1169	1212
40°	1103	1154	1215
45°	1075	1143	1221
50°	1045	1137	1232
55°	1013	1135	1255
60°	973	1140	1287
65°	922	1158	1343
70°	857	1186	1419
75°	781	1246	1539
80°	642	1341	1539
85°	492	1238	1321



TEST NUMBER: P388760

CATALOG NUMBER: 24CZ2-30VHE-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	3.2
10°-20°	247.5	9.1
20°-30°	372.4	13.6
30°-40°	446.3	16.3
40°-50°	465.1	17.0
50°-60°	432.7	15.9
60°-70°	356.4	13.1
70°-80°	242.7	8.9
80°-90°	80.1	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°	706.6	25.9
0°-40°	1152.9	42.2
0°-60°	2050.8	75.1
0°-90°	2730.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2730.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	913	913	909	914	915	87
15°	873	874	875	883	884	246
25°	794	798	806	820	823	366
35°	689	697	712	731	738	431
45°	565	577	600	630	642	436
55°	432	446	484	522	535	385
65°	290	314	364	406	422	288
75°	150	184	240	282	296	159
85°	32	62	80	86	86	40
90°	0	0	0	0	0	



TEST NUMBER: P388760

CATALOG NUMBER: 24CZ2-30VHE-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	916.6	916.6	916.6	916.6	916.6
2.5°	916.6	916.6	912.1	916.6	916.6
5°	913.0	913.0	909.3	913.9	914.8
7.5°	906.6	907.5	903.9	909.3	910.2
10°	897.5	898.4	896.6	902.0	903.0
12.5°	886.6	887.5	887.5	893.8	894.8
15°	872.9	873.8	874.7	882.9	883.8
17.5°	855.6	858.3	860.1	870.2	872.0
20°	837.4	840.1	843.7	854.7	856.5
22.5°	816.4	820.0	826.4	838.3	841.0
25°	794.5	798.2	806.4	820.0	822.8
27.5°	769.9	775.4	785.4	800.0	803.6
30°	744.4	749.9	761.7	777.2	782.7
32.5°	717.1	724.4	738.0	755.3	760.8
35°	688.8	697.0	711.6	730.7	738.0
37.5°	658.8	667.9	685.2	706.1	715.3
40°	627.8	638.7	656.9	681.5	691.6
42.5°	596.8	606.8	629.6	656.0	667.0
45°	564.9	576.8	600.5	630.5	641.5
47.5°	532.1	544.0	572.2	604.1	614.1
50°	499.3	511.2	543.0	576.8	588.6
52.5°	463.8	479.3	515.7	549.4	561.3
55°	431.9	446.5	483.8	522.1	534.8
57.5°	395.4	412.8	453.8	493.8	507.5
60°	361.7	380.0	423.7	464.7	478.4
62.5°	327.1	347.1	393.6	435.5	451.0
65°	289.7	314.3	363.6	406.4	421.9
67.5°	256.0	281.5	333.5	377.2	390.9
70°	217.8	248.7	301.6	345.3	360.8
72.5°	185.0	215.9	271.5	314.3	329.8
75°	150.3	184.1	239.6	282.5	296.1
77.5°	115.7	153.1	208.7	241.5	246.0
80°	82.9	122.1	173.1	192.3	198.6
82.5°	58.3	93.8	127.6	140.3	144.0
85°	31.9	62.0	80.2	85.6	85.6
87.5°	13.7	26.4	31.9	32.8	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)