

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: P389719

Luminaire Tested: **24CZ2-35VHE-S-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: P389719
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: 24CZ2-35VHE-S-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3317.6 lumens
Efficiency: N/A
Efficacy: 145.5 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

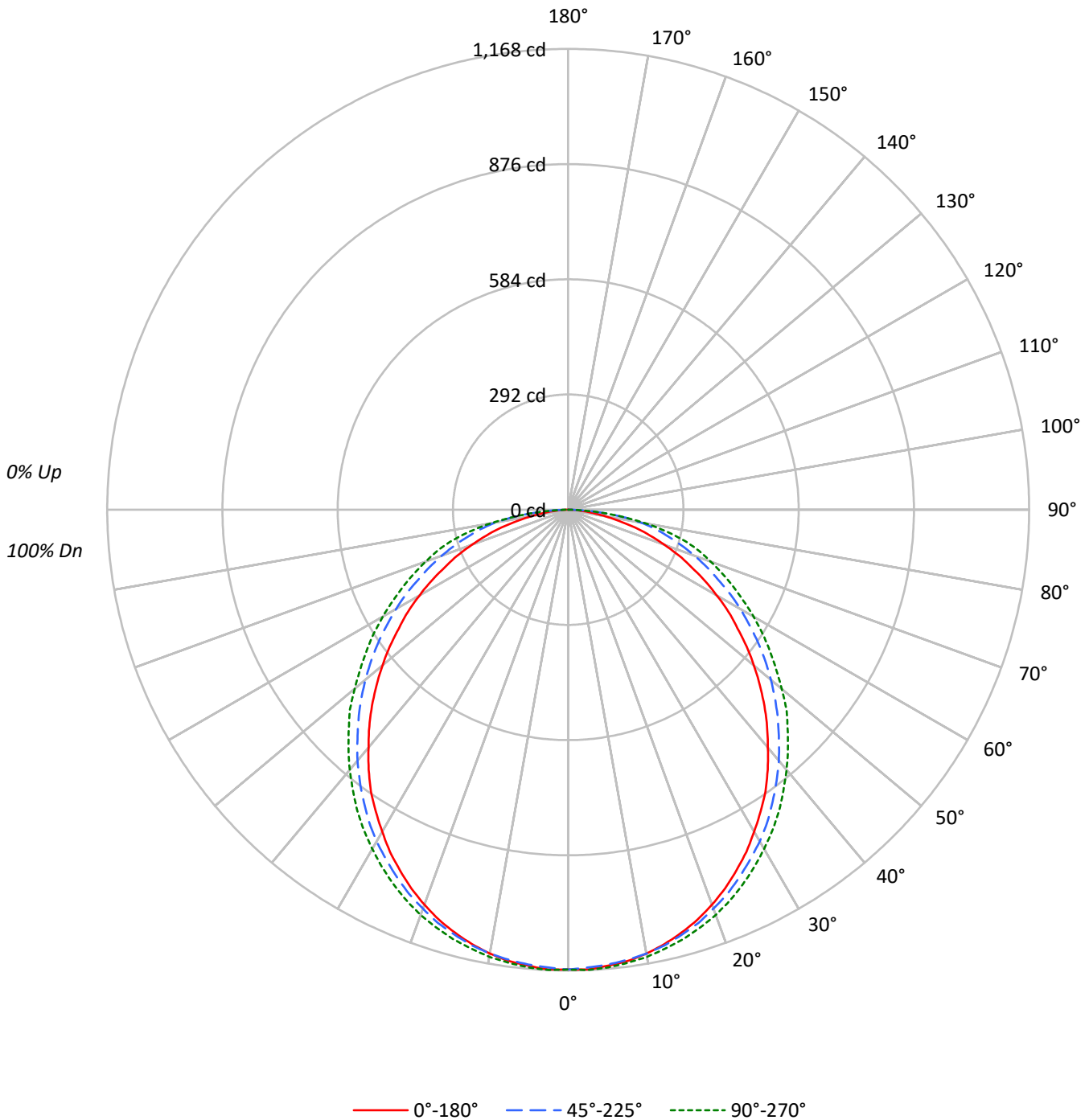
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1568	1568	1568
5°	1567	1563	1573
10°	1561	1561	1572
15°	1546	1553	1569
20°	1525	1541	1565
25°	1497	1525	1555
30°	1464	1508	1542
35°	1431	1483	1530
40°	1383	1459	1512
45°	1337	1430	1496
50°	1286	1403	1478
55°	1228	1377	1463
60°	1171	1355	1460
65°	1097	1332	1470
70°	1016	1339	1509
75°	909	1364	1594
80°	735	1445	1560
85°	553	1269	1237



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.3	3.3
10°-20°	315.3	9.5
20°-30°	473.9	14.3
30°-40°	564.5	17.0
40°-50°	577.8	17.4
50°-60°	520.2	15.7
60°-70°	408.5	12.3
70°-80°	265.1	8.0
80°-90°	82.0	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°	899.5	27.1
0°-40°	1464.1	44.1
0°-60°	2562.0	77.2
0°-90°	3317.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3317.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1160	1162	1157	1163	1164	110
15°	1110	1113	1115	1124	1126	313
25°	1008	1017	1027	1044	1048	465
35°	872	882	903	925	932	544
45°	703	720	751	780	786	542
55°	524	547	587	618	624	470
65°	345	371	418	453	462	343
75°	175	209	262	298	307	185
85°	36	66	82	80	80	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1165.5	1165.5	1165.5	1165.5	1165.5
2.5°	1166.5	1166.5	1161.3	1166.5	1167.6
5°	1160.2	1162.3	1157.1	1163.4	1164.4
7.5°	1153.9	1153.9	1150.7	1157.1	1158.1
10°	1142.3	1143.4	1142.3	1149.7	1150.7
12.5°	1127.6	1129.7	1130.7	1138.1	1139.1
15°	1109.6	1112.8	1114.9	1124.4	1126.5
17.5°	1089.6	1092.8	1098.1	1108.6	1110.7
20°	1065.4	1069.6	1075.9	1089.6	1092.8
22.5°	1039.0	1043.3	1053.8	1066.4	1071.7
25°	1008.5	1016.9	1027.4	1044.3	1047.5
27.5°	977.9	985.3	999.0	1016.9	1021.1
30°	942.1	953.7	970.5	988.5	992.7
32.5°	907.3	918.9	938.9	957.9	963.2
35°	871.5	882.0	903.1	925.2	931.6
37.5°	830.4	844.1	867.3	889.4	895.7
40°	787.2	804.0	830.4	853.6	860.9
42.5°	746.1	764.0	790.3	815.6	824.1
45°	702.9	719.7	751.4	779.8	786.1
47.5°	658.6	677.6	711.3	739.8	750.3
50°	614.4	634.4	670.2	699.7	706.0
52.5°	570.1	591.2	629.1	660.7	663.9
55°	523.7	546.9	587.0	617.5	623.8
57.5°	481.6	501.6	544.8	576.4	583.8
60°	435.2	457.3	503.7	533.2	542.7
62.5°	391.0	414.1	462.6	492.1	500.6
65°	344.6	370.9	418.4	453.1	461.6
67.5°	304.5	329.8	380.4	414.1	422.6
70°	258.2	286.6	340.4	375.2	383.6
72.5°	218.1	247.6	301.4	335.1	347.8
75°	174.9	208.7	262.4	298.2	306.7
77.5°	132.8	171.8	226.6	254.0	254.0
80°	94.8	135.9	186.5	199.2	201.3
82.5°	62.2	102.2	138.0	137.0	137.0
85°	35.8	66.4	82.2	80.1	80.1
87.5°	13.7	27.4	29.5	29.5	28.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)