

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: P391278

Luminaire Tested: **24CZ2-35VHE-HRP-UNV-L950-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: P391278
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-HRP-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2647.8 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

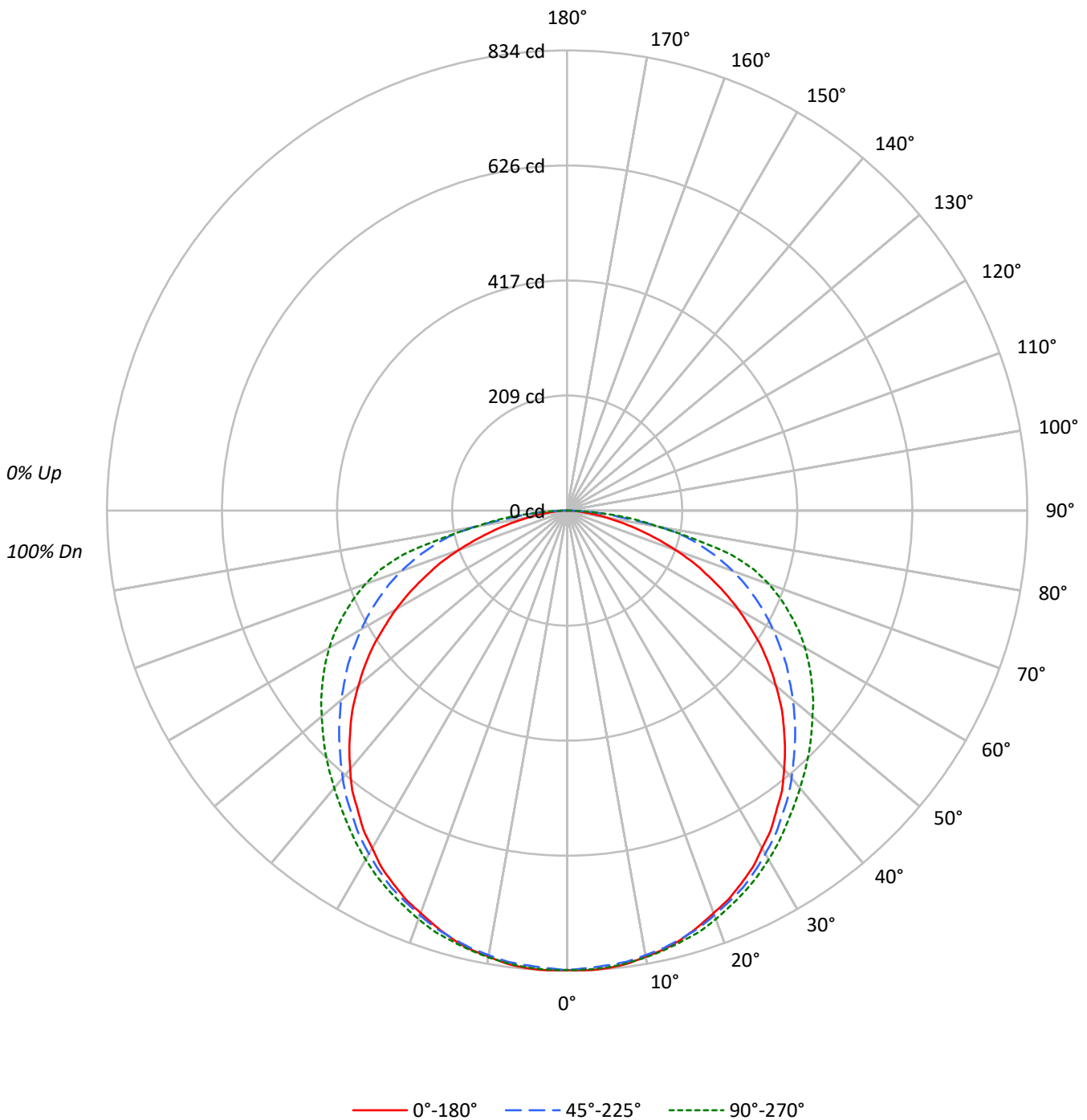
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1120	1120	1120
5°	1125	1118	1123
10°	1121	1118	1123
15°	1120	1118	1125
20°	1111	1117	1128
25°	1107	1119	1131
30°	1098	1116	1134
35°	1087	1113	1139
40°	1075	1112	1153
45°	1057	1112	1180
50°	1034	1119	1215
55°	1008	1137	1269
60°	965	1159	1340
65°	903	1200	1422
70°	821	1255	1529
75°	697	1325	1598
80°	549	1333	1292
85°	406	1014	1135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.0	3.0
10°-20°	227.3	8.6
20°-30°	347.6	13.1
30°-40°	425.0	16.0
40°-50°	452.9	17.1
50°-60°	433.0	16.4
60°-70°	366.8	13.9
70°-80°	246.5	9.3
80°-90°	69.5	2.6
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°	653.9	24.7
0°-40°	1078.9	40.7
0°-60°	1964.9	74.2
0°-90°	2647.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2647.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	833	831	827	831	831	79
15°	804	804	802	809	808	227
25°	746	749	754	760	762	344
35°	662	667	678	691	693	415
45°	556	565	584	609	620	428
55°	430	445	485	523	541	383
65°	284	313	377	427	446	282
75°	134	183	255	298	307	143
85°	26	54	66	71	74	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	832.7	832.7	832.7	832.7	832.7
2.5°	834.0	834.0	830.0	832.7	832.7
5°	832.7	831.3	827.4	831.3	831.3
7.5°	828.7	827.4	824.8	828.7	827.4
10°	820.8	820.8	818.2	822.2	822.2
12.5°	814.3	813.0	811.6	816.9	815.6
15°	803.8	803.8	802.5	809.0	807.7
17.5°	790.6	791.9	793.3	798.5	799.8
20°	776.2	778.8	780.1	788.0	788.0
22.5°	763.1	764.4	767.0	774.9	774.9
25°	746.0	748.6	753.9	760.4	761.7
27.5°	728.9	730.2	736.8	746.0	747.3
30°	706.6	710.5	718.4	728.9	730.2
32.5°	686.9	690.8	700.0	710.5	713.1
35°	661.9	667.2	677.7	690.8	693.4
37.5°	639.6	643.5	656.7	671.1	675.1
40°	612.0	619.9	633.0	650.1	656.7
42.5°	584.4	592.3	608.1	630.4	638.3
45°	555.5	564.7	584.4	609.4	619.9
47.5°	526.6	537.2	559.5	588.4	600.2
50°	493.8	506.9	534.5	567.4	580.5
52.5°	462.3	478.1	508.3	545.0	562.1
55°	429.5	445.2	484.6	522.7	541.1
57.5°	392.7	413.7	457.0	500.4	520.1
60°	358.5	378.2	430.8	478.1	497.8
62.5°	321.8	348.0	404.5	454.4	474.1
65°	283.7	312.6	376.9	426.8	446.5
67.5°	249.5	281.1	349.3	399.3	419.0
70°	208.8	248.2	319.1	369.0	388.7
72.5°	170.7	214.1	287.6	336.2	354.6
75°	134.0	182.6	254.8	298.1	307.3
77.5°	99.8	151.0	220.6	239.0	232.5
80°	70.9	120.8	172.0	162.9	166.8
82.5°	46.0	91.9	106.4	120.8	124.8
85°	26.3	53.8	65.7	70.9	73.5
87.5°	11.8	19.7	26.3	26.3	25.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)