

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: P391274

Luminaire Tested: **24CZ2-35VHE-HRP-UNV-L935-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: P391274
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-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2530.5 lumens
Efficiency: N/A
Efficacy: 111.0 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

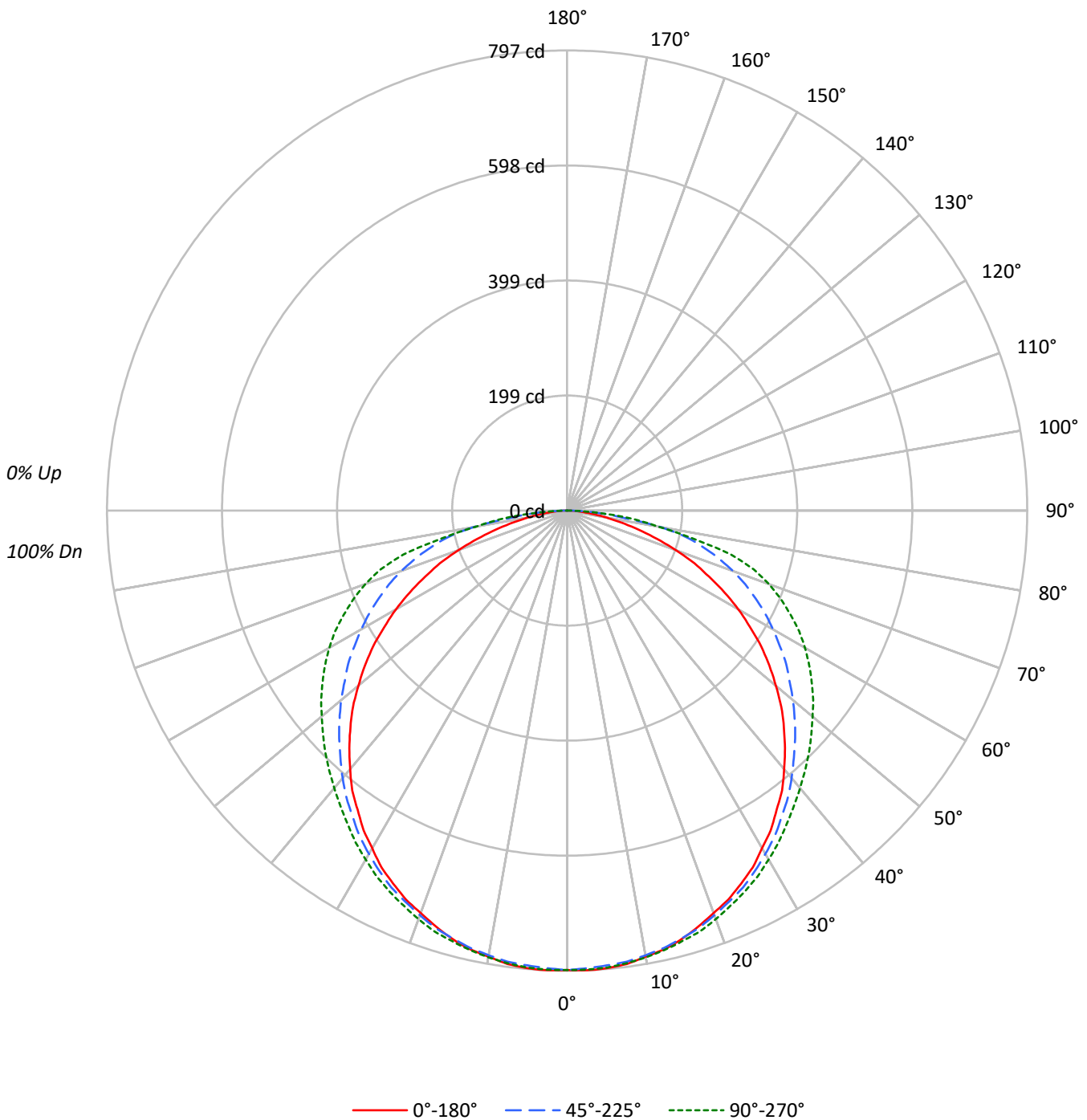
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	67	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°	1071	1071	1071
5°	1075	1068	1073
10°	1072	1068	1073
15°	1070	1068	1075
20°	1062	1068	1078
25°	1058	1070	1081
30°	1049	1067	1084
35°	1039	1064	1089
40°	1027	1063	1102
45°	1010	1063	1127
50°	988	1069	1161
55°	963	1087	1213
60°	922	1108	1280
65°	863	1147	1359
70°	785	1200	1461
75°	665	1266	1527
80°	525	1274	1235
85°	387	969	1085



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.5	3.0
10°-20°	217.3	8.6
20°-30°	332.2	13.1
30°-40°	406.1	16.0
40°-50°	432.8	17.1
50°-60°	413.9	16.4
60°-70°	350.6	13.9
70°-80°	235.6	9.3
80°-90°	66.5	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
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0°-30°	624.9	24.7
0°-40°	1031.1	40.7
0°-60°	1877.8	74.2
0°-90°	2530.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2530.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	796	794	791	794	794	76
15°	768	768	767	773	772	217
25°	713	715	720	727	728	329
35°	633	638	648	660	663	396
45°	531	540	558	582	592	409
55°	410	426	463	500	517	366
65°	271	299	360	408	427	269
75°	128	174	244	285	294	137
85°	25	52	63	68	70	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	795.8	795.8	795.8	795.8	795.8
2.5°	797.0	797.0	793.3	795.8	795.8
5°	795.8	794.5	790.7	794.5	794.5
7.5°	792.0	790.7	788.2	792.0	790.7
10°	784.5	784.5	782.0	785.7	785.7
12.5°	778.2	776.9	775.7	780.7	779.5
15°	768.2	768.2	766.9	773.2	771.9
17.5°	755.6	756.9	758.1	763.1	764.4
20°	741.8	744.3	745.6	753.1	753.1
22.5°	729.2	730.5	733.0	740.5	740.5
25°	712.9	715.4	720.5	726.7	728.0
27.5°	696.6	697.9	704.1	712.9	714.2
30°	675.3	679.0	686.6	696.6	697.9
32.5°	656.4	660.2	669.0	679.0	681.6
35°	632.6	637.6	647.7	660.2	662.7
37.5°	611.3	615.0	627.6	641.4	645.2
40°	584.9	592.4	605.0	621.3	627.6
42.5°	558.5	566.1	581.1	602.5	610.0
45°	530.9	539.7	558.5	582.4	592.4
47.5°	503.3	513.4	534.7	562.3	573.6
50°	471.9	484.5	510.8	542.2	554.8
52.5°	441.8	456.9	485.7	520.9	537.2
55°	410.4	425.5	463.2	499.6	517.1
57.5°	375.3	395.4	436.8	478.2	497.0
60°	342.7	361.5	411.7	456.9	475.7
62.5°	307.5	332.6	386.6	434.3	453.1
65°	271.1	298.7	360.2	407.9	426.8
67.5°	238.5	268.6	333.9	381.6	400.4
70°	199.6	237.2	305.0	352.7	371.5
72.5°	163.2	204.6	274.9	321.3	338.9
75°	128.0	174.5	243.5	284.9	293.7
77.5°	95.4	144.3	210.9	228.4	222.2
80°	67.8	115.5	164.4	155.6	159.4
82.5°	43.9	87.9	101.7	115.5	119.2
85°	25.1	51.5	62.8	67.8	70.3
87.5°	11.3	18.8	25.1	25.1	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)