

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: P391276

Luminaire Tested: **24CZ2-35VHE-HRP-UNV-L940-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: P391276
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-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2524.9 lumens
Efficiency: N/A
Efficacy: 110.7 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

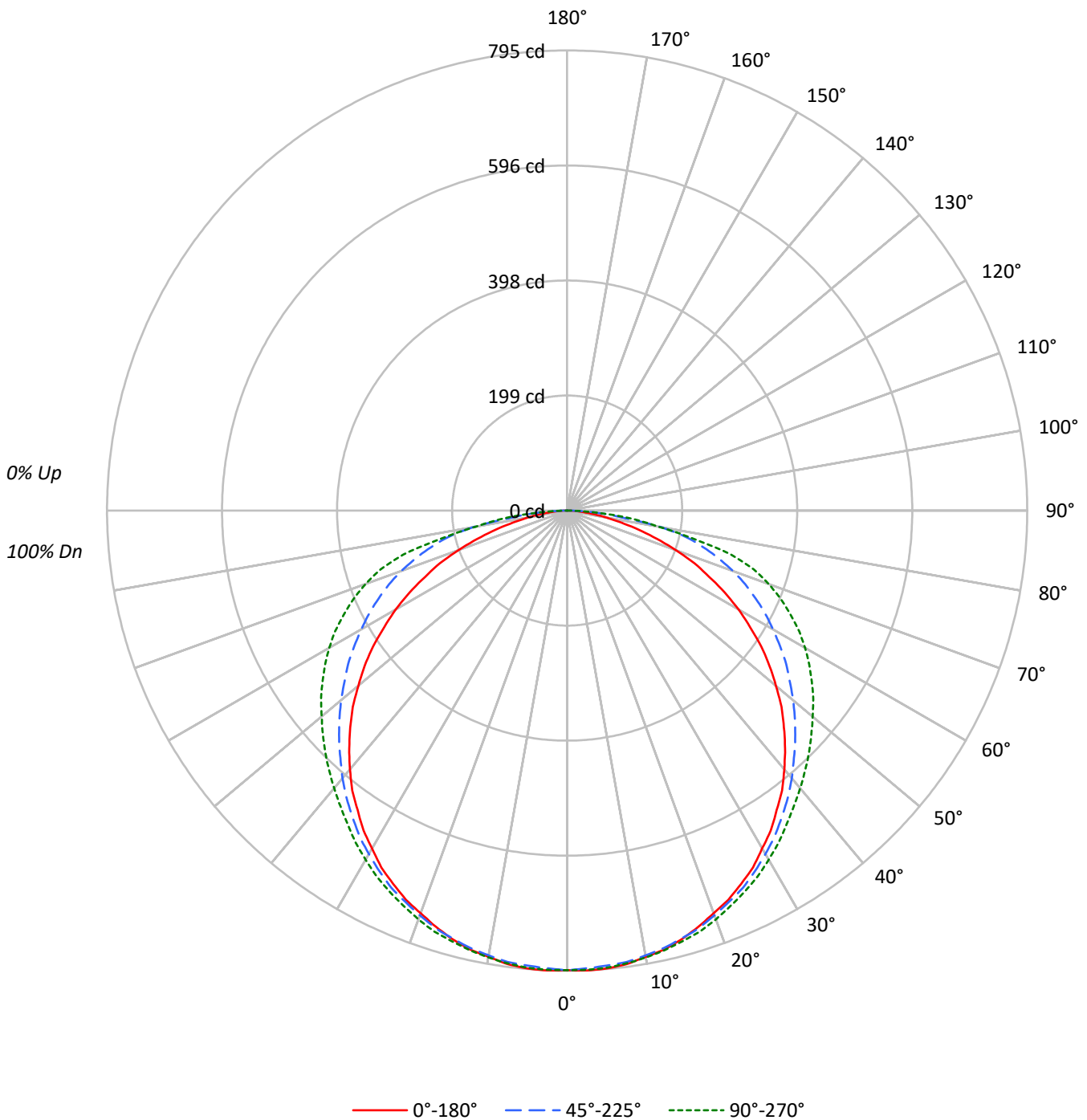
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1068	1068	1068
5°	1072	1066	1071
10°	1069	1066	1071
15°	1068	1066	1073
20°	1060	1065	1076
25°	1056	1067	1078
30°	1047	1064	1082
35°	1037	1062	1086
40°	1025	1060	1100
45°	1008	1060	1125
50°	986	1067	1159
55°	961	1084	1210
60°	920	1105	1277
65°	861	1144	1356
70°	783	1197	1458
75°	664	1263	1524
80°	524	1272	1233
85°	386	966	1082



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	3.0
10°-20°	216.8	8.6
20°-30°	331.5	13.1
30°-40°	405.3	16.0
40°-50°	431.9	17.1
50°-60°	413.0	16.4
60°-70°	349.8	13.9
70°-80°	235.1	9.3
80°-90°	66.3	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°	623.6	24.7
0°-40°	1028.9	40.7
0°-60°	1873.7	74.2
0°-90°	2524.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2524.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	794	794	794	794	794	
5°	794	793	789	793	793	75
15°	766	766	765	772	770	216
25°	711	714	719	725	726	328
35°	631	636	646	659	661	395
45°	530	538	557	581	591	409
55°	410	425	462	498	516	365
65°	270	298	359	407	426	269
75°	128	174	243	284	293	137
85°	25	51	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°	794.0	794.0	794.0	794.0	794.0
2.5°	795.3	795.3	791.5	794.0	794.0
5°	794.0	792.8	789.0	792.8	792.8
7.5°	790.3	789.0	786.5	790.3	789.0
10°	782.8	782.8	780.3	784.0	784.0
12.5°	776.5	775.3	774.0	779.0	777.8
15°	766.5	766.5	765.2	771.5	770.2
17.5°	754.0	755.2	756.5	761.5	762.7
20°	740.2	742.7	743.9	751.5	751.5
22.5°	727.7	728.9	731.4	738.9	738.9
25°	711.4	713.9	718.9	725.2	726.4
27.5°	695.1	696.4	702.6	711.4	712.6
30°	673.8	677.6	685.1	695.1	696.4
32.5°	655.0	658.8	667.5	677.6	680.1
35°	631.2	636.2	646.3	658.8	661.3
37.5°	609.9	613.7	626.2	640.0	643.7
40°	583.6	591.1	603.7	620.0	626.2
42.5°	557.3	564.8	579.9	601.2	608.7
45°	529.8	538.5	557.3	581.1	591.1
47.5°	502.2	512.2	533.5	561.1	572.4
50°	470.9	483.4	509.7	541.0	553.6
52.5°	440.9	455.9	484.7	519.8	536.0
55°	409.5	424.6	462.1	498.5	516.0
57.5°	374.5	394.5	435.8	477.2	496.0
60°	341.9	360.7	410.8	455.9	474.7
62.5°	306.8	331.9	385.7	433.3	452.1
65°	270.5	298.1	359.4	407.0	425.8
67.5°	238.0	268.0	333.1	380.7	399.5
70°	199.1	236.7	304.3	351.9	370.7
72.5°	162.8	204.1	274.3	320.6	338.2
75°	127.7	174.1	243.0	284.3	293.1
77.5°	95.2	144.0	210.4	227.9	221.7
80°	67.6	115.2	164.1	155.3	159.1
82.5°	43.8	87.7	101.4	115.2	119.0
85°	25.0	51.3	62.6	67.6	70.1
87.5°	11.3	18.8	25.0	25.0	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)