

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: P390000

Luminaire Tested: **24CZ2-95VHE-S-UNV-L935-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: P390000
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: 24CZ2-95VHE-S-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8252.5 lumens
Efficiency: N/A
Efficacy: 125.8 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

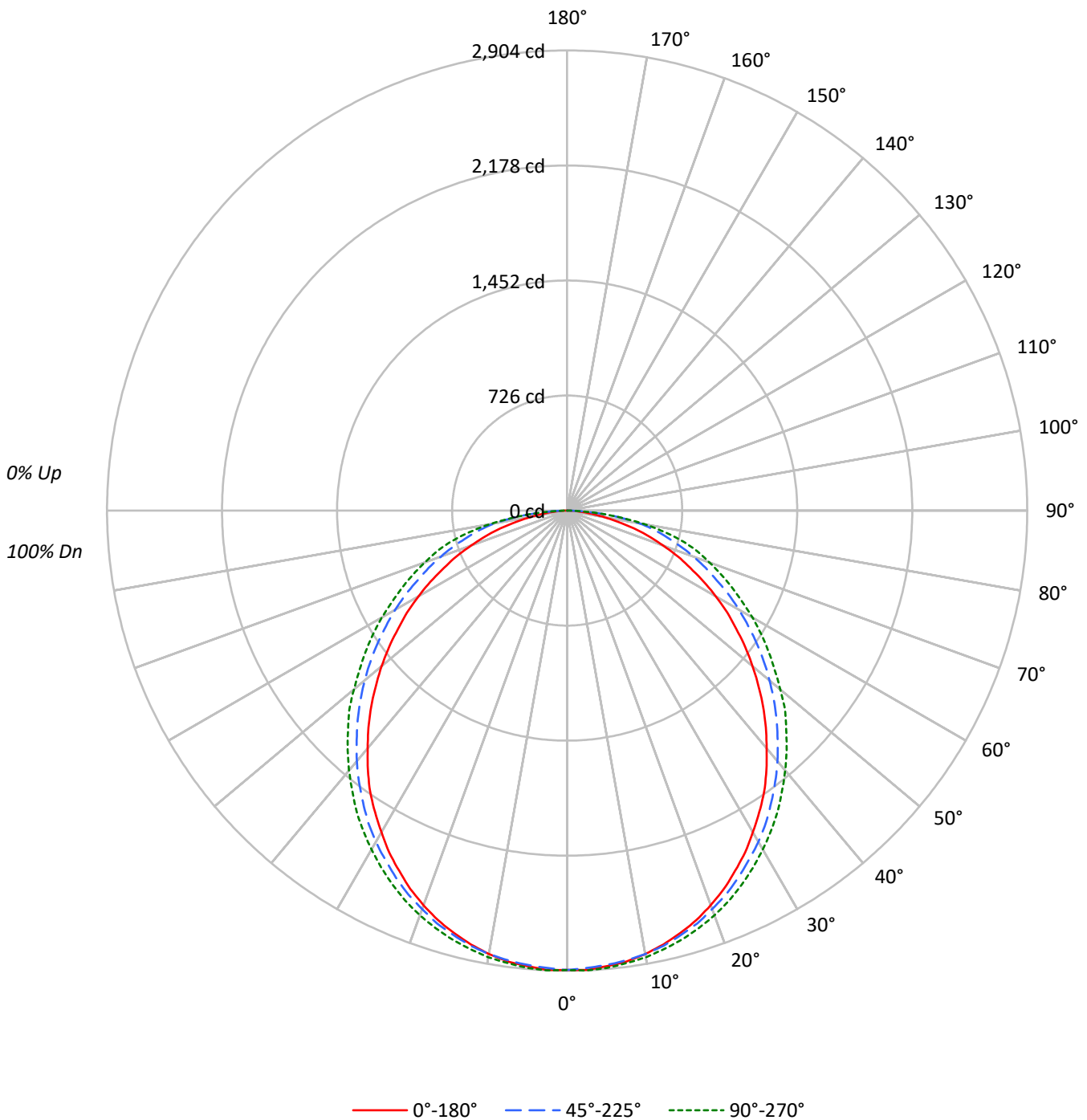
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390000

CATALOG NUMBER: 24CZ2-95VHE-S-UNV-L935-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P390000

CATALOG NUMBER: 24CZ2-95VHE-S-UNV-L935-CD1-SDWPD1-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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3901	3901	3901
5°	3898	3887	3912
10°	3882	3882	3911
15°	3845	3863	3903
20°	3795	3832	3892
25°	3724	3794	3868
30°	3641	3751	3836
35°	3561	3690	3806
40°	3439	3628	3762
45°	3327	3556	3721
50°	3199	3490	3676
55°	3056	3425	3640
60°	2913	3372	3633
65°	2729	3313	3655
70°	2526	3331	3754
75°	2262	3393	3965
80°	1828	3595	3880
85°	1376	3157	3075



TEST NUMBER: P390000

CATALOG NUMBER: 24CZ2-95VHE-S-UNV-L935-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.5	3.3
10°-20°	784.2	9.5
20°-30°	1178.9	14.3
30°-40°	1404.3	17.0
40°-50°	1437.2	17.4
50°-60°	1293.9	15.7
60°-70°	1016.1	12.3
70°-80°	659.5	8.0
80°-90°	204.0	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°	2237.6	27.1
0°-40°	3641.9	44.1
0°-60°	6373.0	77.2
0°-90°	8252.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8252.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2899	2899	2899	2899	2899	
5°	2886	2891	2878	2894	2896	274
15°	2760	2768	2773	2797	2802	778
25°	2509	2530	2556	2598	2606	1156
35°	2168	2194	2246	2302	2317	1352
45°	1748	1790	1869	1940	1956	1348
55°	1303	1360	1460	1536	1552	1168
65°	857	923	1041	1127	1148	853
75°	435	519	653	742	763	460
85°	89	165	204	199	199	108
90°	0	0	0	0	0	



TEST NUMBER: P390000

CATALOG NUMBER: 24CZ2-95VHE-S-UNV-L935-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2899.2	2899.2	2899.2	2899.2	2899.2
2.5°	2901.8	2901.8	2888.7	2901.8	2904.4
5°	2886.1	2891.3	2878.2	2893.9	2896.5
7.5°	2870.3	2870.3	2862.5	2878.2	2880.8
10°	2841.5	2844.1	2841.5	2859.8	2862.5
12.5°	2804.8	2810.0	2812.7	2831.0	2833.6
15°	2760.2	2768.1	2773.3	2796.9	2802.2
17.5°	2710.4	2718.3	2731.4	2757.6	2762.8
20°	2650.1	2660.6	2676.3	2710.4	2718.3
22.5°	2584.6	2595.1	2621.3	2652.8	2665.9
25°	2508.6	2529.6	2555.8	2597.7	2605.6
27.5°	2432.6	2450.9	2485.0	2529.6	2540.0
30°	2343.4	2372.3	2414.2	2458.8	2469.3
32.5°	2256.9	2285.8	2335.6	2382.8	2395.9
35°	2167.8	2194.0	2246.5	2301.5	2317.2
37.5°	2065.6	2099.7	2157.3	2212.4	2228.1
40°	1958.1	2000.1	2065.6	2123.3	2141.6
42.5°	1855.9	1900.4	1966.0	2028.9	2049.9
45°	1748.4	1790.3	1869.0	1939.8	1955.5
47.5°	1638.3	1685.5	1769.4	1840.2	1866.4
50°	1528.2	1578.0	1667.1	1740.5	1756.3
52.5°	1418.1	1470.5	1564.9	1643.6	1651.4
55°	1302.8	1360.5	1460.1	1536.1	1551.8
57.5°	1197.9	1247.7	1355.2	1433.9	1452.2
60°	1082.6	1137.6	1253.0	1326.4	1350.0
62.5°	972.5	1030.2	1150.8	1224.1	1245.1
65°	857.2	922.7	1040.7	1127.2	1148.1
67.5°	757.6	820.5	946.3	1030.2	1051.1
70°	642.2	713.0	846.7	933.2	954.2
72.5°	542.6	616.0	749.7	833.6	865.0
75°	435.1	519.0	652.7	741.8	762.8
77.5°	330.3	427.3	563.6	631.7	631.7
80°	235.9	338.1	464.0	495.4	500.7
82.5°	154.7	254.3	343.4	340.8	340.8
85°	89.1	165.1	204.5	199.2	199.2
87.5°	34.1	68.2	73.4	73.4	70.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)