

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: P389216

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L940-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: P389216
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-SQR-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7810.9 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

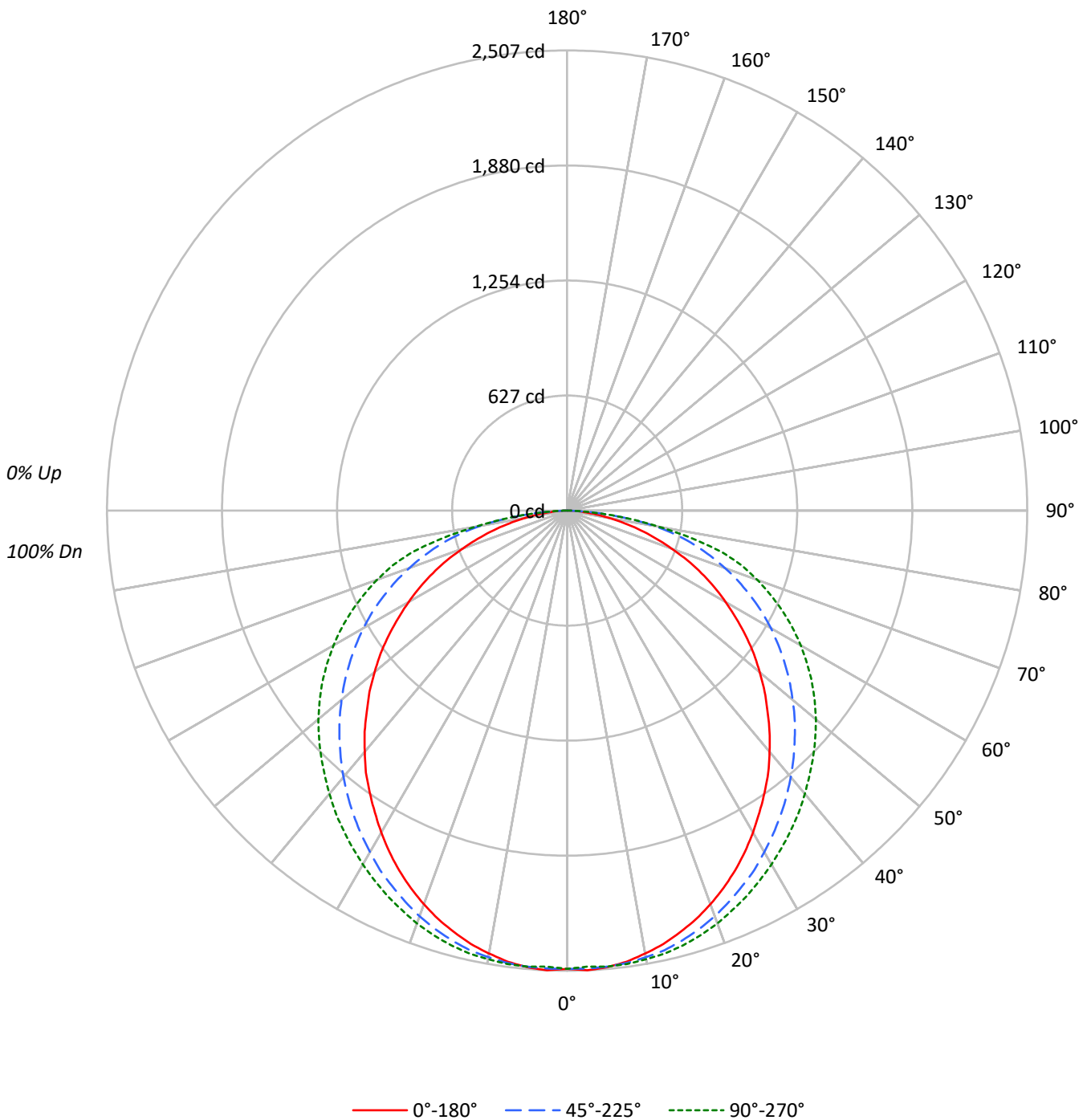
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3359	3359	3359
5°	3372	3369	3369
10°	3348	3376	3390
15°	3313	3377	3413
20°	3268	3368	3427
25°	3213	3351	3439
30°	3146	3338	3458
35°	3080	3330	3491
40°	3013	3330	3538
45°	2935	3337	3607
50°	2867	3358	3704
55°	2783	3394	3818
60°	2686	3450	3956
65°	2570	3514	4122
70°	2384	3602	4333
75°	2159	3727	4532
80°	1819	3737	3897
85°	1394	2827	2827



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.0	3.0
10°-20°	681.9	8.7
20°-30°	1035.7	13.3
30°-40°	1259.8	16.1
40°-50°	1341.3	17.2
50°-60°	1277.5	16.4
60°-70°	1068.4	13.7
70°-80°	712.3	9.1
80°-90°	197.1	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°	1954.6	25.0
0°-40°	3214.4	41.2
0°-60°	5833.2	74.7
0°-90°	7810.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7810.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2497	2497	2497	2497	2497	
5°	2497	2481	2494	2494	2494	237
15°	2378	2383	2424	2443	2450	671
25°	2164	2192	2257	2296	2316	996
35°	1875	1929	2027	2094	2125	1173
45°	1542	1625	1754	1852	1896	1192
55°	1186	1290	1447	1573	1628	1061
65°	807	926	1104	1241	1295	798
75°	415	547	717	838	872	440
85°	90	168	183	180	183	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2496.7	2496.7	2496.7	2496.7	2496.7
2.5°	2507.1	2489.0	2496.7	2496.7	2486.4
5°	2496.7	2481.3	2494.2	2494.2	2494.2
7.5°	2478.7	2465.8	2486.4	2491.6	2491.6
10°	2450.3	2445.2	2471.0	2478.7	2481.3
12.5°	2419.4	2416.8	2452.9	2463.2	2471.0
15°	2378.1	2383.3	2424.5	2442.6	2450.3
17.5°	2334.2	2344.6	2391.0	2416.8	2424.5
20°	2282.7	2298.1	2352.3	2378.1	2393.6
22.5°	2225.9	2249.1	2305.9	2336.8	2354.9
25°	2164.0	2192.4	2256.9	2295.6	2316.2
27.5°	2097.0	2133.1	2207.9	2251.7	2272.3
30°	2024.7	2066.0	2148.5	2200.1	2225.9
32.5°	1949.9	1998.9	2089.2	2146.0	2176.9
35°	1875.1	1929.3	2027.3	2094.4	2125.3
37.5°	1800.3	1854.5	1962.8	2035.1	2073.7
40°	1715.2	1779.7	1895.8	1975.7	2014.4
42.5°	1632.7	1702.3	1826.1	1913.8	1955.1
45°	1542.4	1624.9	1753.9	1851.9	1895.8
47.5°	1459.9	1542.4	1681.7	1784.9	1833.9
50°	1369.6	1457.3	1604.3	1717.8	1769.4
52.5°	1281.9	1372.2	1526.9	1648.2	1699.7
55°	1186.5	1289.6	1447.0	1573.4	1627.5
57.5°	1091.0	1201.9	1364.4	1496.0	1550.1
60°	998.2	1111.7	1281.9	1413.4	1470.2
62.5°	905.3	1018.8	1196.8	1330.9	1385.1
65°	807.3	926.0	1103.9	1240.6	1294.8
67.5°	709.3	833.1	1011.1	1147.8	1199.4
70°	606.1	737.7	915.6	1049.8	1101.4
72.5°	510.7	642.2	817.6	949.2	998.2
75°	415.3	546.8	717.0	838.3	871.8
77.5°	322.4	454.0	606.1	686.1	693.8
80°	234.7	358.5	482.3	505.5	503.0
82.5°	157.3	268.2	332.7	335.3	343.0
85°	90.3	167.7	183.1	180.5	183.1
87.5°	36.1	59.3	51.6	38.7	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)