

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: P389212

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L935-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: P389212
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-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7635.0 lumens
Efficiency: N/A
Efficacy: 116.4 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

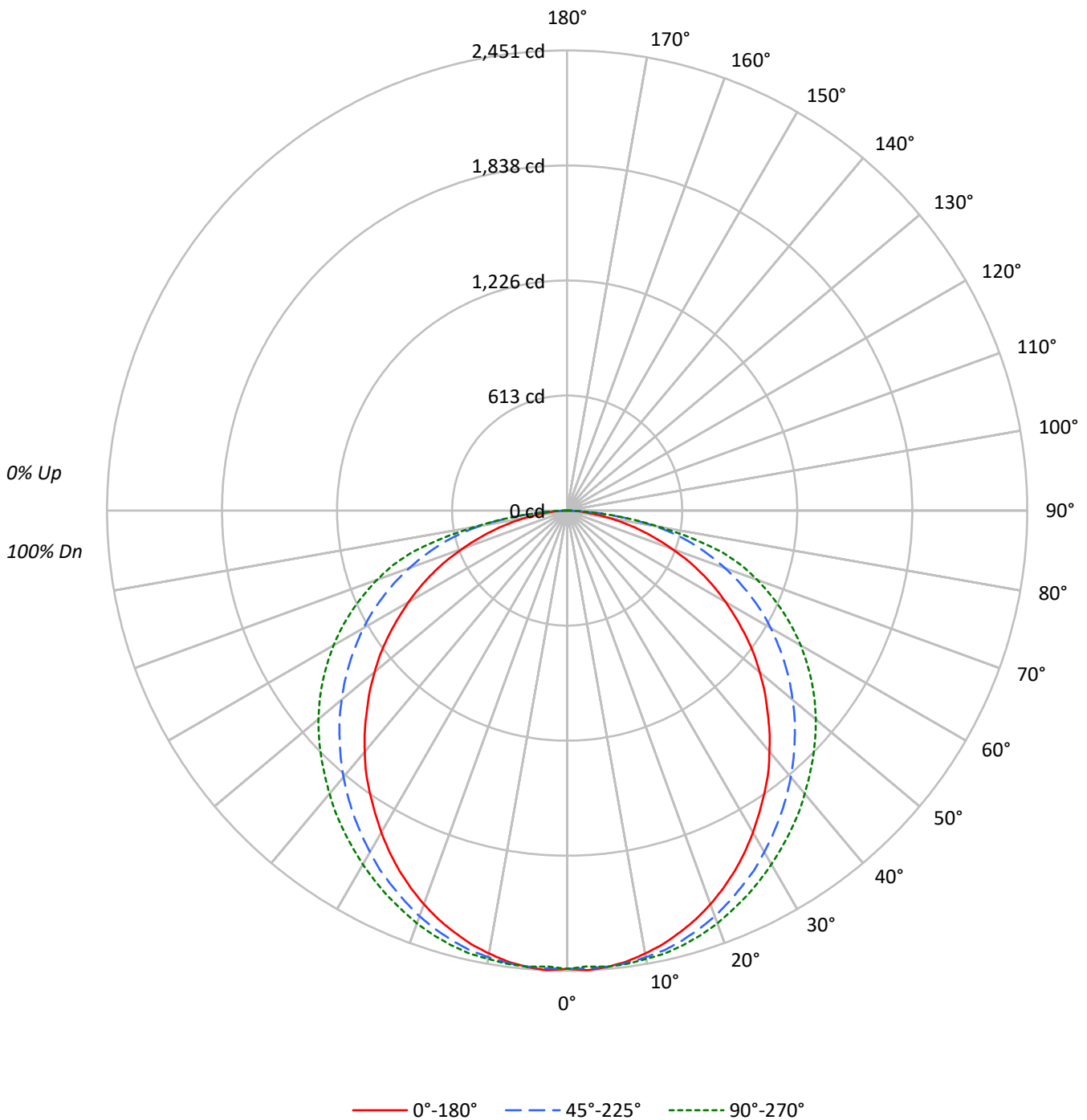
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3284	3284	3284
5°	3296	3293	3293
10°	3272	3300	3314
15°	3238	3301	3336
20°	3195	3292	3350
25°	3140	3275	3361
30°	3075	3263	3380
35°	3011	3255	3412
40°	2945	3255	3459
45°	2869	3262	3526
50°	2802	3283	3620
55°	2721	3318	3732
60°	2626	3372	3867
65°	2512	3436	4029
70°	2331	3521	4235
75°	2110	3644	4430
80°	1777	3653	3809
85°	1362	2763	2763



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.7	3.0
10°-20°	666.5	8.7
20°-30°	1012.4	13.3
30°-40°	1231.4	16.1
40°-50°	1311.1	17.2
50°-60°	1248.7	16.4
60°-70°	1044.3	13.7
70°-80°	696.2	9.1
80°-90°	192.6	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°	1910.6	25.0
0°-40°	3142.0	41.2
0°-60°	5701.8	74.7
0°-90°	7635.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7635.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2440	2440	2440	2440	2440	
5°	2440	2425	2438	2438	2438	232
15°	2324	2330	2370	2388	2395	656
25°	2115	2143	2206	2244	2264	974
35°	1833	1886	1982	2047	2078	1147
45°	1508	1588	1714	1810	1853	1166
55°	1160	1261	1414	1538	1591	1037
65°	789	905	1079	1213	1266	780
75°	406	534	701	819	852	430
85°	88	164	179	176	179	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2440.5	2440.5	2440.5	2440.5	2440.5
2.5°	2450.6	2433.0	2440.5	2440.5	2430.4
5°	2440.5	2425.4	2438.0	2438.0	2438.0
7.5°	2422.9	2410.3	2430.4	2435.5	2435.5
10°	2395.1	2390.1	2415.3	2422.9	2425.4
12.5°	2364.9	2362.4	2397.7	2407.7	2415.3
15°	2324.5	2329.6	2369.9	2387.6	2395.1
17.5°	2281.7	2291.8	2337.1	2362.4	2369.9
20°	2231.3	2246.4	2299.3	2324.5	2339.7
22.5°	2175.8	2198.5	2253.9	2284.2	2301.9
25°	2115.3	2143.0	2206.0	2243.9	2264.0
27.5°	2049.7	2085.0	2158.1	2201.0	2221.2
30°	1979.1	2019.5	2100.2	2150.6	2175.8
32.5°	1906.0	1953.9	2042.2	2097.6	2127.9
35°	1832.9	1885.9	1981.7	2047.2	2077.5
37.5°	1759.8	1812.7	1918.6	1989.2	2027.0
40°	1676.6	1739.6	1853.1	1931.2	1969.1
42.5°	1595.9	1664.0	1785.0	1870.7	1911.1
45°	1507.7	1588.4	1714.4	1810.2	1853.1
47.5°	1427.0	1507.7	1643.8	1744.7	1792.6
50°	1338.8	1424.5	1568.2	1679.1	1729.5
52.5°	1253.0	1341.3	1492.5	1611.0	1661.5
55°	1159.8	1260.6	1414.4	1537.9	1590.9
57.5°	1066.5	1174.9	1333.7	1462.3	1515.2
60°	975.7	1086.6	1253.0	1381.6	1437.1
62.5°	884.9	995.9	1169.8	1300.9	1353.9
65°	789.1	905.1	1079.1	1212.7	1265.6
67.5°	693.3	814.3	988.3	1121.9	1172.4
70°	592.5	721.1	895.0	1026.1	1076.6
72.5°	499.2	627.8	799.2	927.8	975.7
75°	405.9	534.5	700.9	819.4	852.2
77.5°	315.1	443.7	592.5	670.6	678.2
80°	229.4	350.4	471.5	494.2	491.6
82.5°	153.8	262.2	325.2	327.8	335.3
85°	88.2	163.9	179.0	176.5	179.0
87.5°	35.3	58.0	50.4	37.8	37.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)