

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: P388298

Luminaire Tested: **24CZ2-100VHE-SQR-UNV-L930-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: P388298
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: 24CZ2-100VHE-SQR-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8075.2 lumens
Efficiency: N/A
Efficacy: 116.0 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

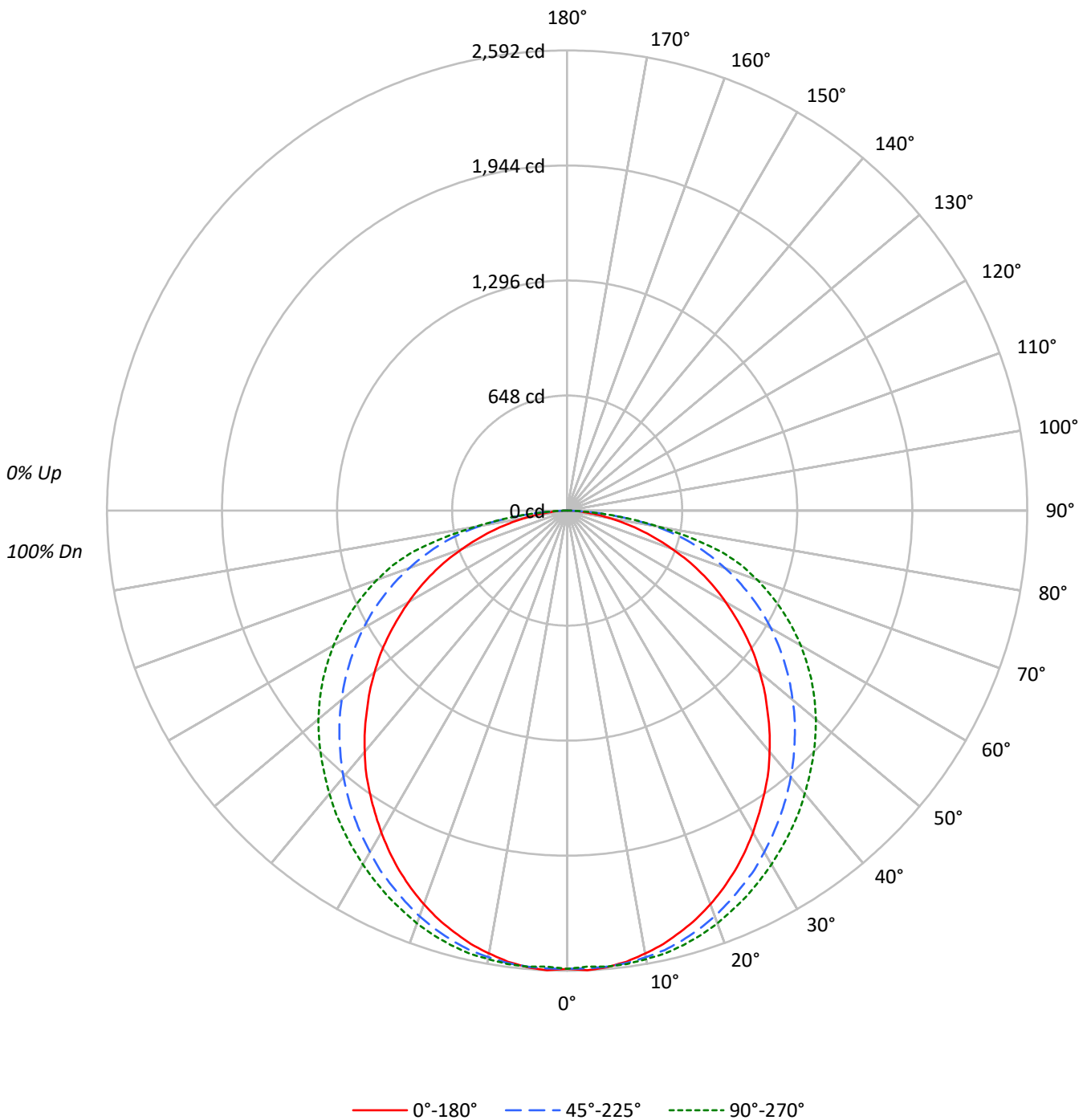
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47					47			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41					41			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3473	3473	3473
5°	3486	3483	3483
10°	3461	3490	3505
15°	3425	3492	3529
20°	3379	3482	3543
25°	3321	3464	3555
30°	3252	3451	3575
35°	3184	3443	3609
40°	3115	3442	3658
45°	3034	3450	3729
50°	2964	3472	3829
55°	2877	3509	3947
60°	2777	3566	4090
65°	2657	3634	4262
70°	2465	3724	4479
75°	2232	3854	4685
80°	1881	3863	4029
85°	1440	2922	2922



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.0	3.0
10°-20°	704.9	8.7
20°-30°	1070.8	13.3
30°-40°	1302.4	16.1
40°-50°	1386.7	17.2
50°-60°	1320.7	16.4
60°-70°	1104.5	13.7
70°-80°	736.4	9.1
80°-90°	203.8	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°	2020.7	25.0
0°-40°	3323.1	41.2
0°-60°	6030.5	74.7
0°-90°	8075.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8075.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2581	2581	2581	2581	2581	
5°	2581	2565	2579	2579	2579	245
15°	2459	2464	2507	2525	2533	693
25°	2237	2267	2333	2373	2395	1030
35°	1939	1995	2096	2165	2197	1213
45°	1595	1680	1813	1915	1960	1233
55°	1227	1333	1496	1627	1683	1097
65°	835	957	1141	1283	1339	825
75°	429	565	741	867	901	455
85°	93	173	189	187	189	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2581.2	2581.2	2581.2	2581.2	2581.2
2.5°	2591.9	2573.2	2581.2	2581.2	2570.6
5°	2581.2	2565.2	2578.6	2578.6	2578.6
7.5°	2562.6	2549.2	2570.6	2575.9	2575.9
10°	2533.2	2527.9	2554.6	2562.6	2565.2
12.5°	2501.2	2498.6	2535.9	2546.6	2554.6
15°	2458.6	2463.9	2506.6	2525.2	2533.2
17.5°	2413.2	2423.9	2471.9	2498.6	2506.6
20°	2359.9	2375.9	2431.9	2458.6	2474.6
22.5°	2301.2	2325.2	2383.9	2415.9	2434.6
25°	2237.2	2266.6	2333.2	2373.2	2394.6
27.5°	2167.9	2205.2	2282.6	2327.9	2349.2
30°	2093.2	2135.9	2221.2	2274.6	2301.2
32.5°	2015.9	2066.6	2159.9	2218.6	2250.6
35°	1938.6	1994.6	2095.9	2165.2	2197.2
37.5°	1861.3	1917.3	2029.2	2103.9	2143.9
40°	1773.3	1839.9	1959.9	2042.6	2082.6
42.5°	1687.9	1759.9	1887.9	1978.6	2021.2
45°	1594.6	1679.9	1813.3	1914.6	1959.9
47.5°	1509.3	1594.6	1738.6	1845.3	1895.9
50°	1415.9	1506.6	1658.6	1775.9	1829.3
52.5°	1325.3	1418.6	1578.6	1703.9	1757.3
55°	1226.6	1333.3	1495.9	1626.6	1682.6
57.5°	1128.0	1242.6	1410.6	1546.6	1602.6
60°	1032.0	1149.3	1325.3	1461.3	1519.9
62.5°	936.0	1053.3	1237.3	1375.9	1431.9
65°	834.6	957.3	1141.3	1282.6	1338.6
67.5°	733.3	861.3	1045.3	1186.6	1239.9
70°	626.6	762.6	946.6	1085.3	1138.6
72.5°	528.0	664.0	845.3	981.3	1032.0
75°	429.3	565.3	741.3	866.6	901.3
77.5°	333.3	469.3	626.6	709.3	717.3
80°	242.7	370.7	498.6	522.6	520.0
82.5°	162.7	277.3	344.0	346.7	354.7
85°	93.3	173.3	189.3	186.7	189.3
87.5°	37.3	61.3	53.3	40.0	40.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)