

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: P388227

Luminaire Tested: **22CZ2-85VHE-SQR-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: P388227  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-85VHE-SQR-UNV-L935-CD1-SDWPD1-U  
Description: 2x2 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: 6825.1 lumens  
Efficiency: N/A  
Efficacy: 107.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

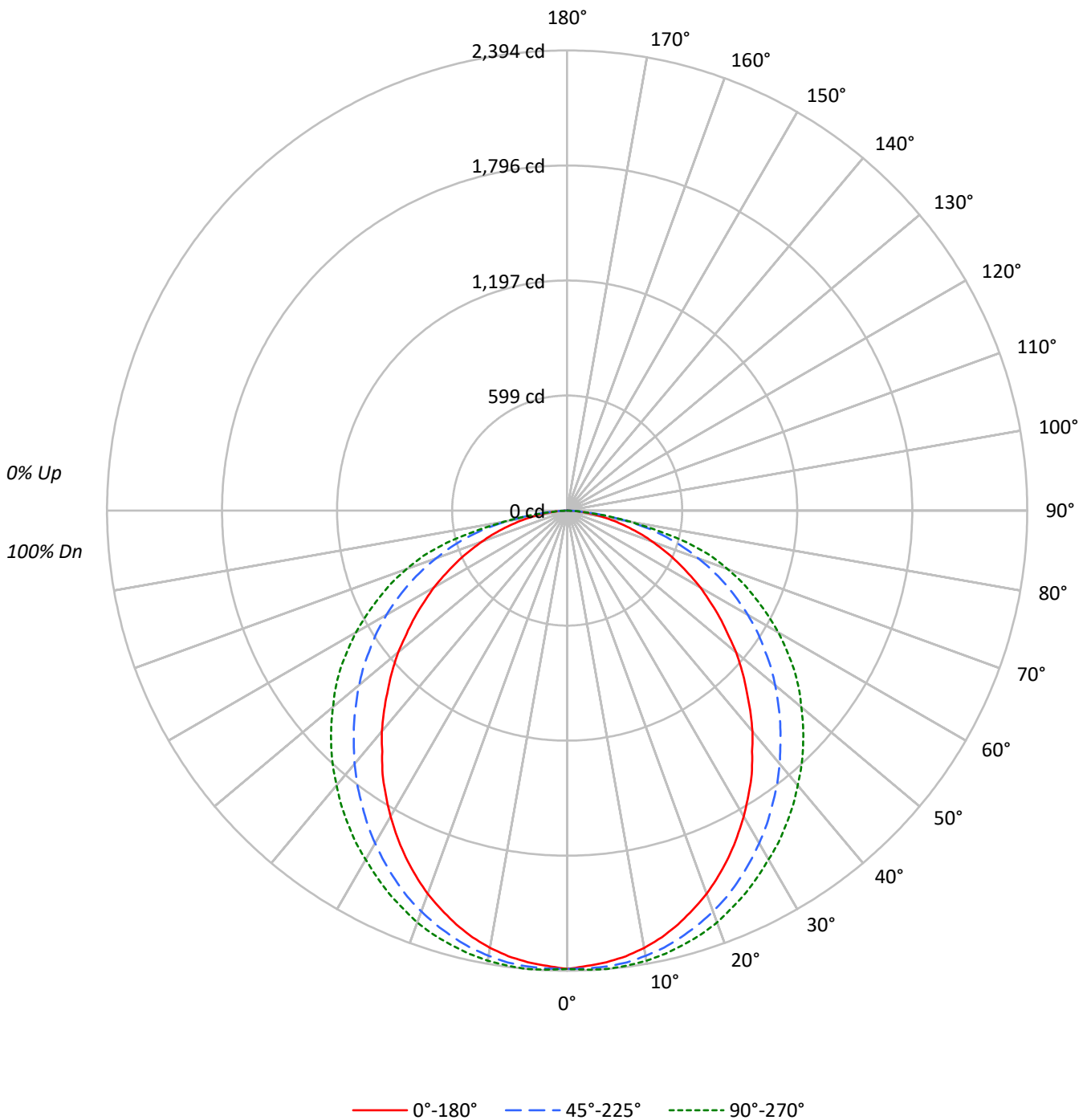
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6416	6416	6416
5°	6370	6431	6467
10°	6311	6426	6497
15°	6209	6398	6516
20°	6076	6355	6531
25°	5906	6290	6521
30°	5707	6211	6513
35°	5502	6119	6534
40°	5269	6042	6555
45°	5017	5967	6608
50°	4801	5913	6659
55°	4544	5866	6763
60°	4306	5841	6834
65°	4022	5796	6889
70°	3696	5709	6984
75°	3334	5557	6736
80°	2861	4920	5071
85°	2300	2899	2300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	226.0	3.3
10°-20°	646.2	9.5
20°-30°	970.6	14.2
30°-40°	1157.6	17.0
40°-50°	1196.8	17.5
50°-60°	1100.3	16.1
60°-70°	876.0	12.8
70°-80°	535.2	7.8
80°-90°	116.3	1.7
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°	1842.9	27.0
0°-40°	3000.4	44.0
0°-60°	5297.6	77.6
0°-90°	6825.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6825.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2384	2384	2384	2384	2384	
5°	2358	2365	2381	2391	2394	224
15°	2229	2255	2297	2329	2339	628
25°	1989	2038	2118	2177	2196	915
35°	1675	1746	1863	1960	1989	1045
45°	1318	1412	1568	1694	1736	1020
55°	969	1076	1250	1393	1442	866
65°	632	739	910	1037	1082	626
75°	321	415	534	628	648	342
85°	74	91	94	81	74	86
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2384.2	2384.2	2384.2	2384.2	2384.2
2.5°	2371.2	2374.5	2384.2	2390.7	2390.7
5°	2358.3	2364.7	2380.9	2390.7	2393.9
7.5°	2338.8	2348.5	2371.2	2384.2	2387.4
10°	2309.7	2322.6	2351.8	2371.2	2377.7
12.5°	2274.0	2293.5	2329.1	2355.0	2361.5
15°	2228.7	2254.6	2296.7	2329.1	2338.8
17.5°	2176.9	2209.2	2261.1	2299.9	2312.9
20°	2121.8	2154.2	2219.0	2264.3	2280.5
22.5°	2057.0	2099.1	2173.6	2225.4	2238.4
25°	1989.0	2037.6	2118.5	2176.9	2196.3
27.5°	1914.5	1972.8	2060.2	2131.5	2147.7
30°	1836.7	1898.3	1998.7	2076.4	2095.9
32.5°	1755.7	1827.0	1933.9	2021.4	2047.3
35°	1674.8	1746.0	1862.6	1959.8	1989.0
37.5°	1580.8	1665.0	1794.6	1895.0	1930.7
40°	1499.8	1580.8	1720.1	1830.2	1865.9
42.5°	1409.1	1496.6	1642.4	1762.2	1804.3
45°	1318.4	1412.4	1567.9	1694.2	1736.3
47.5°	1234.2	1328.1	1490.1	1622.9	1665.0
50°	1146.7	1243.9	1412.4	1548.4	1590.5
52.5°	1052.8	1159.7	1334.6	1470.7	1519.3
55°	968.6	1075.5	1250.4	1392.9	1441.5
57.5°	881.1	991.2	1172.6	1308.7	1354.1
60°	800.1	907.0	1085.2	1218.0	1269.8
62.5°	712.7	822.8	997.7	1127.3	1175.9
65°	631.7	738.6	910.3	1036.6	1081.9
67.5°	550.7	657.6	819.6	939.4	991.2
70°	469.7	576.6	725.6	842.2	887.6
72.5°	398.4	492.4	634.9	741.8	783.9
75°	320.7	414.6	534.5	628.4	647.9
77.5°	249.4	333.7	434.1	476.2	482.7
80°	184.6	249.4	317.5	327.2	327.2
82.5°	123.1	171.7	197.6	200.8	197.6
85°	74.5	90.7	93.9	81.0	74.5
87.5°	25.9	25.9	16.2	9.7	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)