

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: P388489

Luminaire Tested: **22CZ2-80VHE-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: P388489  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-80VHE-UNV-L935-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6756.7 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

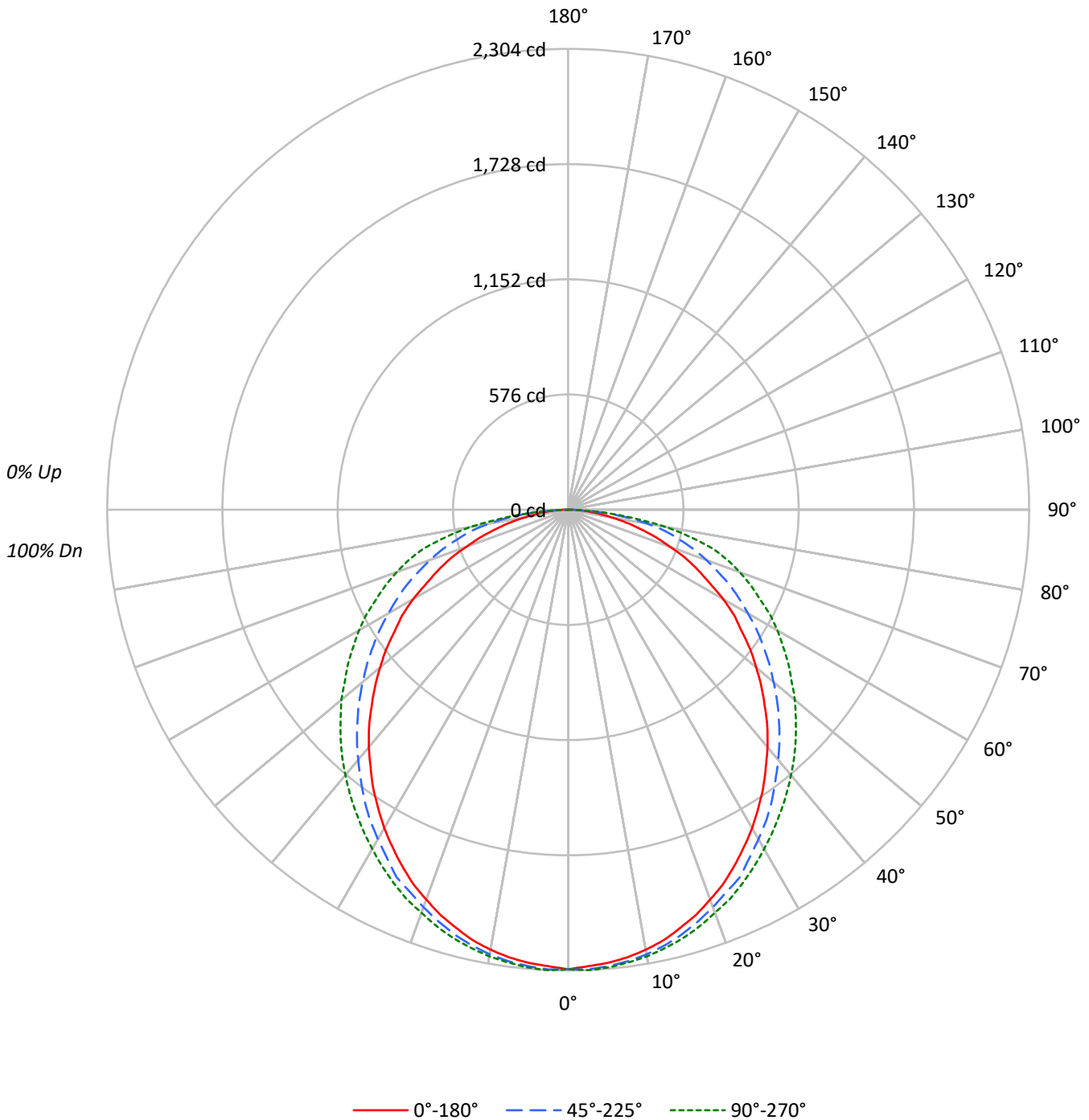
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	6182	6182	6182
5°	6143	6188	6206
10°	6105	6169	6196
15°	6030	6123	6178
20°	5941	6055	6141
25°	5834	6022	6120
30°	5713	5909	6085
35°	5581	5832	6073
40°	5442	5735	6085
45°	5289	5668	6124
50°	5136	5609	6194
55°	4960	5584	6302
60°	4814	5583	6495
65°	4572	5673	6732
70°	4264	5781	7168
75°	3906	5980	7743
80°	3400	6234	7626
85°	2976	5542	6058



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.3	3.2
10°-20°	618.9	9.2
20°-30°	929.0	13.7
30°-40°	1110.1	16.4
40°-50°	1154.3	17.1
50°-60°	1069.9	15.8
60°-70°	877.6	13.0
70°-80°	593.2	8.8
80°-90°	186.4	2.8
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°	1765.2	26.1
0°-40°	2875.3	42.6
0°-60°	5099.5	75.5
0°-90°	6756.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6756.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2297	2297	2297	2297	2297	
5°	2274	2278	2291	2294	2297	216
15°	2164	2174	2198	2211	2218	611
25°	1965	1982	2028	2051	2061	905
35°	1699	1722	1775	1829	1849	1062
45°	1390	1416	1490	1576	1609	1073
55°	1057	1090	1190	1297	1343	950
65°	718	758	891	1007	1057	710
75°	376	439	575	692	745	398
85°	96	133	180	200	196	109
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2297.4	2297.4	2297.4	2297.4	2297.4
2.5°	2284.1	2290.8	2300.7	2304.1	2304.1
5°	2274.1	2277.5	2290.8	2294.1	2297.4
7.5°	2257.5	2264.2	2277.5	2280.8	2284.1
10°	2234.2	2240.9	2257.5	2264.2	2267.5
12.5°	2204.3	2211.0	2230.9	2240.9	2244.2
15°	2164.4	2174.4	2197.7	2211.0	2217.6
17.5°	2124.5	2134.5	2157.8	2177.7	2184.4
20°	2074.6	2097.9	2114.5	2141.1	2144.5
22.5°	2024.8	2038.1	2068.0	2094.6	2107.9
25°	1964.9	1981.6	2028.1	2051.4	2061.3
27.5°	1901.8	1925.0	1961.6	1998.2	2011.5
30°	1838.6	1855.2	1901.8	1945.0	1958.3
32.5°	1768.8	1792.0	1841.9	1885.1	1905.1
35°	1698.9	1722.2	1775.4	1828.6	1848.6
37.5°	1622.5	1649.1	1702.3	1765.4	1792.0
40°	1549.3	1569.3	1632.5	1708.9	1732.2
42.5°	1472.9	1496.1	1562.6	1645.8	1672.3
45°	1389.7	1416.3	1489.5	1575.9	1609.2
47.5°	1310.0	1336.5	1416.3	1502.8	1542.7
50°	1226.8	1260.1	1339.9	1439.6	1479.5
52.5°	1147.0	1177.0	1266.7	1369.8	1406.4
55°	1057.3	1090.5	1190.3	1296.7	1343.2
57.5°	984.1	1007.4	1117.1	1226.8	1273.4
60°	894.4	924.3	1037.3	1153.7	1206.9
62.5°	797.9	847.8	964.2	1083.9	1137.1
65°	718.1	758.0	891.0	1007.4	1057.3
67.5°	635.0	678.2	807.9	930.9	987.5
70°	541.9	598.5	734.8	857.8	911.0
72.5°	458.8	518.7	658.3	778.0	834.5
75°	375.7	438.9	575.2	691.5	744.7
77.5°	295.9	365.7	498.7	588.5	621.7
80°	219.4	285.9	402.3	465.5	492.1
82.5°	152.9	209.5	295.9	329.2	335.8
85°	96.4	133.0	179.5	199.5	196.2
87.5°	43.2	53.2	66.5	73.1	69.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)