

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: P389147

Luminaire Tested: **24CZ2-80VHE-SQR-UNV-L950-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: P389147
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: 24CZ2-80VHE-SQR-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7077.7 lumens
Efficiency: N/A
Efficacy: 131.6 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

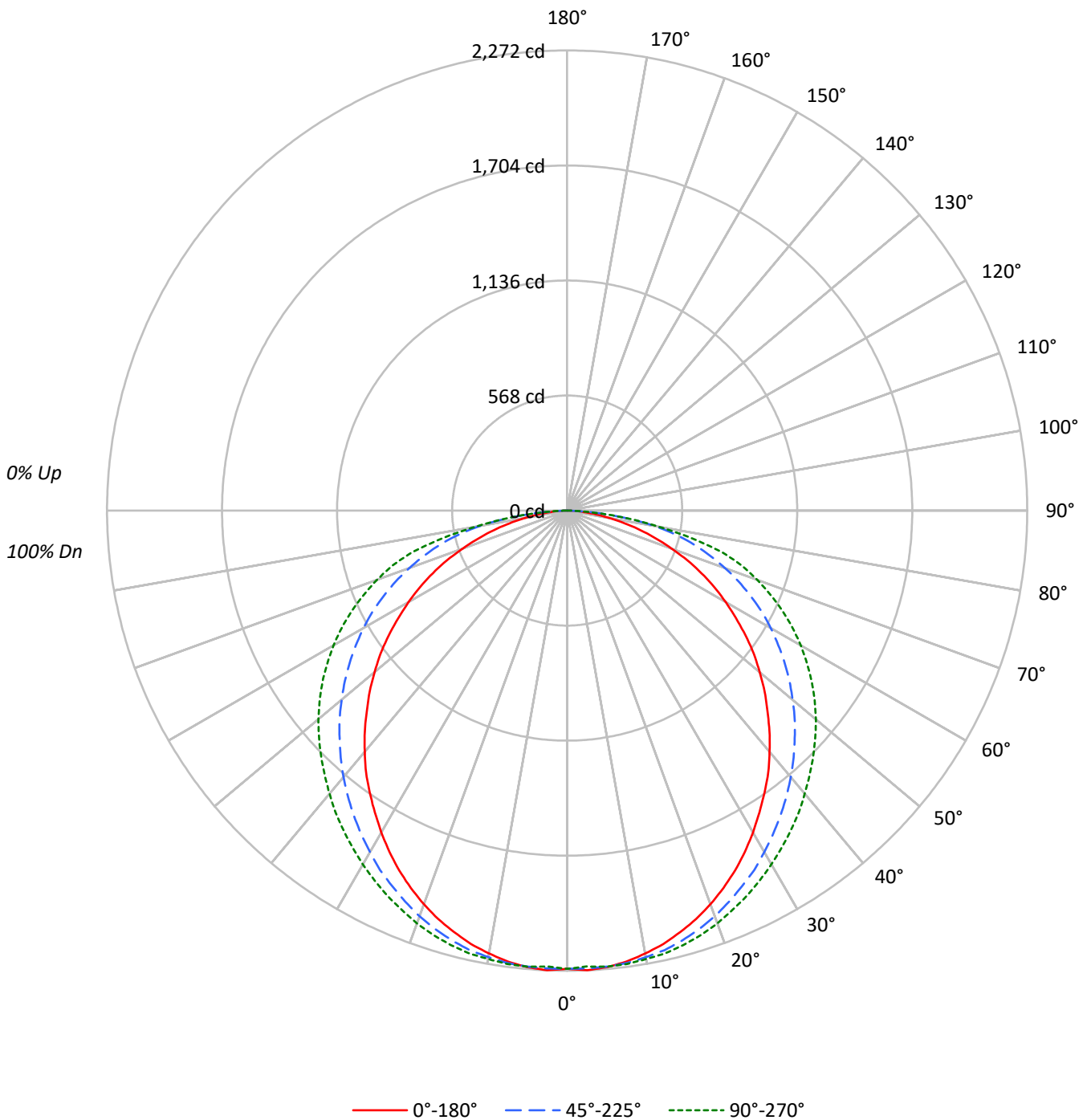
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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
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°	3044	3044	3044
5°	3056	3052	3052
10°	3033	3059	3072
15°	3002	3060	3093
20°	2962	3052	3106
25°	2911	3036	3116
30°	2850	3025	3134
35°	2791	3017	3163
40°	2730	3017	3206
45°	2659	3024	3269
50°	2598	3043	3356
55°	2522	3076	3460
60°	2434	3126	3585
65°	2329	3185	3735
70°	2161	3264	3926
75°	1956	3378	4107
80°	1648	3387	3531
85°	1263	2561	2561



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.7	3.0
10°-20°	617.9	8.7
20°-30°	938.5	13.3
30°-40°	1141.5	16.1
40°-50°	1215.4	17.2
50°-60°	1157.6	16.4
60°-70°	968.1	13.7
70°-80°	645.4	9.1
80°-90°	178.6	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°	1771.1	25.0
0°-40°	2912.6	41.2
0°-60°	5285.6	74.7
0°-90°	7077.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7077.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2262	2262	2262	2262	2262	
5°	2262	2248	2260	2260	2260	215
15°	2155	2160	2197	2213	2220	608
25°	1961	1987	2045	2080	2099	903
35°	1699	1748	1837	1898	1926	1063
45°	1398	1472	1589	1678	1718	1080
55°	1075	1169	1311	1426	1475	961
65°	732	839	1000	1124	1173	723
75°	376	496	650	760	790	399
85°	82	152	166	164	166	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2262.4	2262.4	2262.4	2262.4	2262.4
2.5°	2271.7	2255.4	2262.4	2262.4	2253.0
5°	2262.4	2248.4	2260.0	2260.0	2260.0
7.5°	2246.0	2234.3	2253.0	2257.7	2257.7
10°	2220.3	2215.6	2239.0	2246.0	2248.4
12.5°	2192.3	2189.9	2222.6	2232.0	2239.0
15°	2154.9	2159.5	2196.9	2213.3	2220.3
17.5°	2115.1	2124.5	2166.6	2189.9	2196.9
20°	2068.4	2082.4	2131.5	2154.9	2168.9
22.5°	2017.0	2038.0	2089.4	2117.5	2133.8
25°	1960.9	1986.6	2045.0	2080.1	2098.8
27.5°	1900.1	1932.8	2000.6	2040.3	2059.0
30°	1834.7	1872.1	1946.9	1993.6	2017.0
32.5°	1766.9	1811.3	1893.1	1944.5	1972.6
35°	1699.1	1748.2	1837.0	1897.8	1925.8
37.5°	1631.3	1680.4	1778.6	1844.0	1879.1
40°	1554.2	1612.6	1717.8	1790.3	1825.3
42.5°	1479.4	1542.5	1654.7	1734.2	1771.6
45°	1397.6	1472.4	1589.3	1678.1	1717.8
47.5°	1322.8	1397.6	1523.8	1617.3	1661.7
50°	1241.0	1320.5	1453.7	1556.6	1603.3
52.5°	1161.6	1243.4	1383.6	1493.4	1540.2
55°	1075.1	1168.6	1311.2	1425.7	1474.8
57.5°	988.6	1089.1	1236.4	1355.6	1404.6
60°	904.5	1007.3	1161.6	1280.8	1332.2
62.5°	820.3	923.2	1084.4	1206.0	1255.1
65°	731.5	839.0	1000.3	1124.2	1173.3
67.5°	642.7	754.9	916.2	1040.0	1086.8
70°	549.2	668.4	829.7	951.2	998.0
72.5°	462.8	582.0	740.9	860.1	904.5
75°	376.3	495.5	649.7	759.6	790.0
77.5°	292.1	411.3	549.2	621.7	628.7
80°	212.7	324.9	437.1	458.1	455.7
82.5°	142.6	243.1	301.5	303.8	310.8
85°	81.8	151.9	165.9	163.6	165.9
87.5°	32.7	53.8	46.7	35.1	35.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)