

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: P389000

Luminaire Tested: **24CZ2-80VHE-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: P389000
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

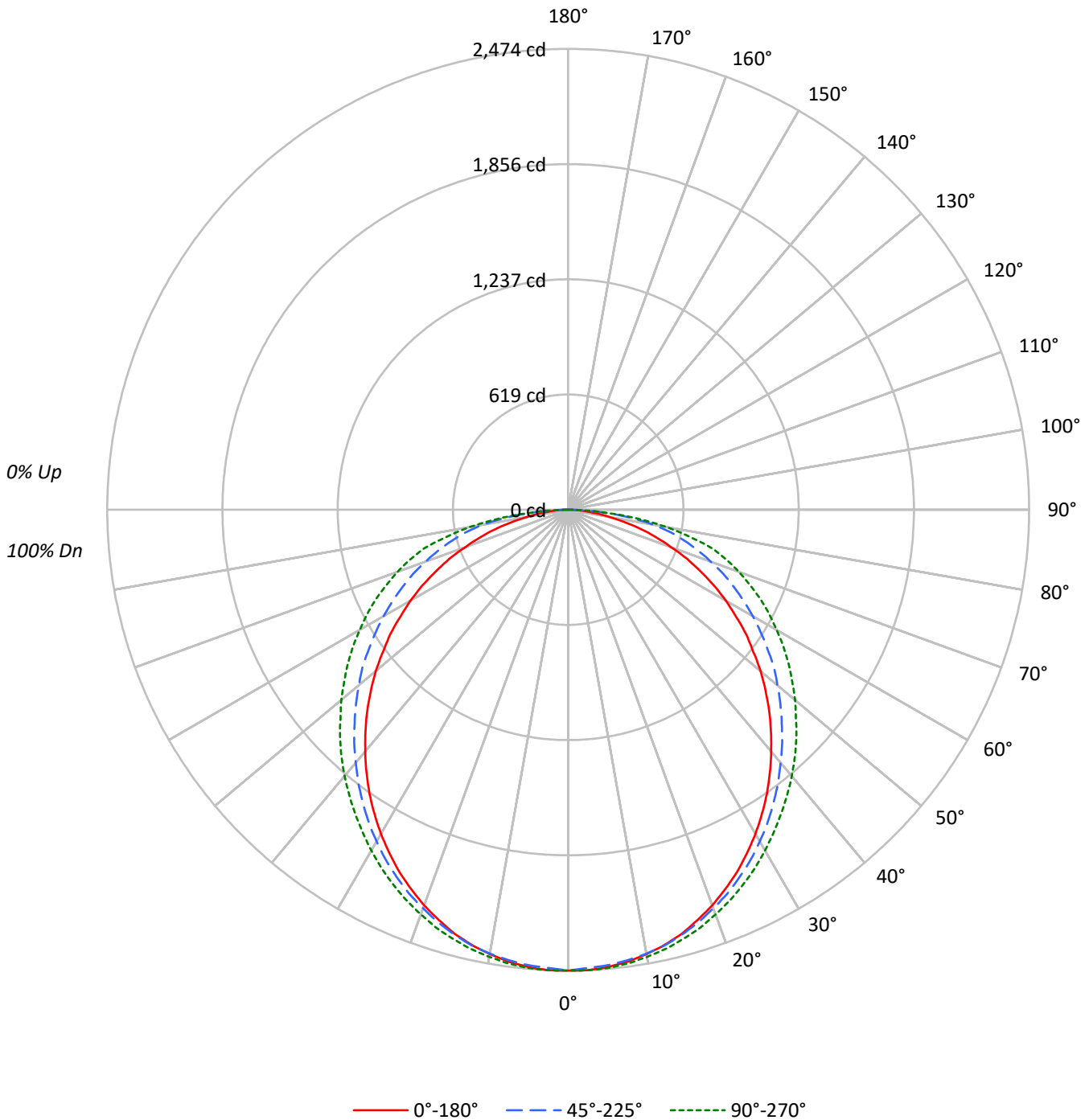
Lumens per Lamp: N/A
Luminaire Lumens: 7369.7 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	
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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3329	3329	3329
5°	3329	3315	3335
10°	3310	3307	3330
15°	3282	3289	3323
20°	3237	3261	3310
25°	3184	3231	3297
30°	3122	3195	3283
35°	3054	3155	3272
40°	2977	3115	3279
45°	2902	3084	3295
50°	2821	3068	3326
55°	2735	3064	3387
60°	2628	3078	3475
65°	2490	3124	3626
70°	2312	3203	3832
75°	2110	3363	4156
80°	1734	3621	4155
85°	1329	3341	3569



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.0	3.2
10°-20°	668.1	9.1
20°-30°	1005.4	13.6
30°-40°	1204.8	16.3
40°-50°	1255.6	17.0
50°-60°	1168.1	15.9
60°-70°	962.1	13.1
70°-80°	655.2	8.9
80°-90°	216.3	2.9
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°	1907.5	25.9
0°-40°	3112.3	42.2
0°-60°	5536.0	75.1
0°-90°	7369.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7369.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2474	2474	2474	2474	2474	
5°	2464	2464	2455	2467	2469	234
15°	2356	2359	2361	2383	2386	664
25°	2145	2155	2177	2214	2221	987
35°	1860	1882	1921	1973	1992	1162
45°	1525	1557	1621	1702	1732	1176
55°	1166	1205	1306	1409	1444	1039
65°	782	849	981	1097	1139	776
75°	406	497	647	762	799	428
85°	86	167	216	231	231	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2474.4	2474.4	2474.4	2474.4	2474.4
2.5°	2474.4	2474.4	2462.1	2474.4	2474.4
5°	2464.5	2464.5	2454.7	2467.0	2469.4
7.5°	2447.3	2449.8	2439.9	2454.7	2457.1
10°	2422.7	2425.2	2420.2	2435.0	2437.5
12.5°	2393.2	2395.6	2395.6	2412.9	2415.3
15°	2356.3	2358.8	2361.2	2383.3	2385.8
17.5°	2309.6	2316.9	2321.9	2348.9	2353.8
20°	2260.4	2267.7	2277.6	2307.1	2312.0
22.5°	2203.8	2213.6	2230.9	2262.8	2270.2
25°	2144.8	2154.6	2176.7	2213.6	2221.0
27.5°	2078.4	2093.1	2120.2	2159.5	2169.4
30°	2009.5	2024.2	2056.2	2098.0	2112.8
32.5°	1935.7	1955.4	1992.3	2039.0	2053.8
35°	1859.5	1881.6	1920.9	1972.6	1992.3
37.5°	1778.3	1802.9	1849.6	1906.2	1930.8
40°	1694.7	1724.2	1773.4	1839.8	1866.8
42.5°	1611.0	1638.1	1699.6	1770.9	1800.4
45°	1524.9	1556.9	1620.9	1702.0	1731.6
47.5°	1436.4	1468.4	1544.6	1630.7	1657.8
50°	1347.9	1379.8	1465.9	1556.9	1588.9
52.5°	1251.9	1293.7	1392.1	1483.1	1515.1
55°	1165.8	1205.2	1306.0	1409.3	1443.8
57.5°	1067.5	1114.2	1224.9	1333.1	1370.0
60°	976.5	1025.7	1143.7	1254.4	1291.3
62.5°	883.0	937.1	1062.5	1175.7	1217.5
65°	782.2	848.6	981.4	1097.0	1138.8
67.5°	691.1	760.0	900.2	1018.3	1055.2
70°	587.8	671.5	814.1	932.2	974.0
72.5°	499.3	582.9	733.0	848.6	890.4
75°	405.8	496.8	646.9	762.5	799.4
77.5°	312.4	413.2	563.2	651.8	664.1
80°	223.8	329.6	467.3	519.0	536.2
82.5°	157.4	253.3	344.3	378.8	388.6
85°	86.1	167.3	216.4	231.2	231.2
87.5°	36.9	71.3	86.1	88.5	91.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)