

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: P391780

Luminaire Tested: **24CZ2-85VHE-RDP-UNV-L940-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: P391780
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-RDP-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4879.6 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

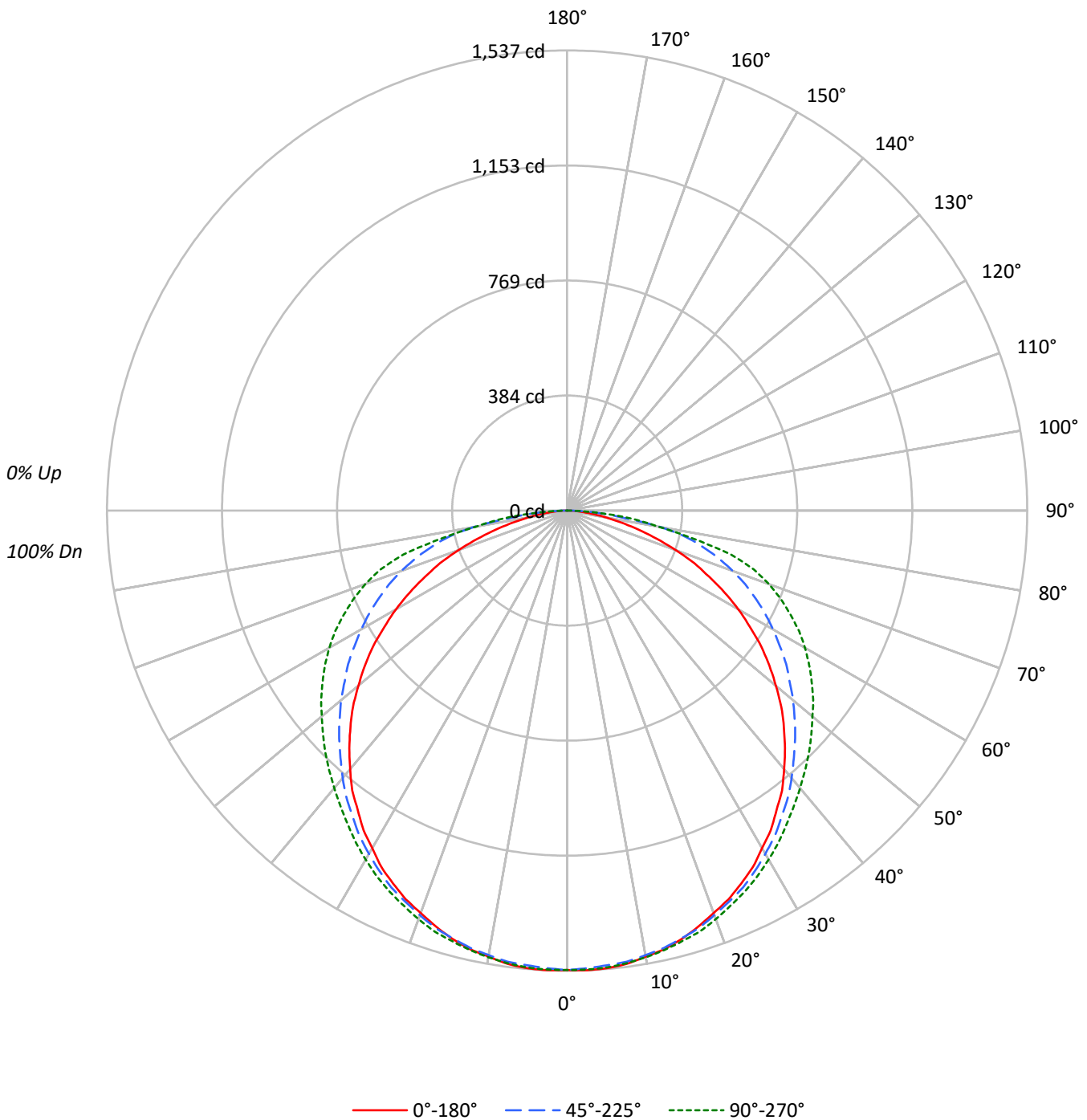
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2065	2065	2065
5°	2073	2059	2069
10°	2067	2060	2070
15°	2063	2060	2073
20°	2048	2059	2079
25°	2041	2063	2084
30°	2023	2057	2091
35°	2004	2051	2099
40°	1981	2049	2126
45°	1948	2050	2174
50°	1905	2062	2239
55°	1857	2095	2339
60°	1778	2136	2468
65°	1664	2211	2620
70°	1514	2314	2818
75°	1284	2441	2944
80°	1013	2457	2382
85°	747	1868	2092



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.6	3.0
10°-20°	418.9	8.6
20°-30°	640.6	13.1
30°-40°	783.2	16.0
40°-50°	834.7	17.1
50°-60°	798.1	16.4
60°-70°	676.1	13.9
70°-80°	454.4	9.3
80°-90°	128.2	2.6
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°	1205.1	24.7
0°-40°	1988.3	40.7
0°-60°	3621.0	74.2
0°-90°	4879.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4879.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1534	1534	1534	1534	1534	
5°	1534	1532	1525	1532	1532	146
15°	1481	1481	1479	1491	1488	418
25°	1375	1380	1389	1401	1404	634
35°	1220	1230	1249	1273	1278	764
45°	1024	1041	1077	1123	1142	790
55°	792	820	893	963	997	705
65°	523	576	695	787	823	519
75°	247	336	470	549	566	264
85°	48	99	121	131	136	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1534.5	1534.5	1534.5	1534.5	1534.5
2.5°	1536.9	1536.9	1529.7	1534.5	1534.5
5°	1534.5	1532.1	1524.8	1532.1	1532.1
7.5°	1527.2	1524.8	1520.0	1527.2	1524.8
10°	1512.7	1512.7	1507.9	1515.1	1515.1
12.5°	1500.6	1498.2	1495.8	1505.5	1503.0
15°	1481.2	1481.2	1478.8	1490.9	1488.5
17.5°	1457.0	1459.5	1461.9	1471.6	1474.0
20°	1430.4	1435.3	1437.7	1452.2	1452.2
22.5°	1406.2	1408.6	1413.5	1428.0	1428.0
25°	1374.8	1379.6	1389.3	1401.4	1403.8
27.5°	1343.3	1345.7	1357.8	1374.8	1377.2
30°	1302.1	1309.4	1323.9	1343.3	1345.7
32.5°	1265.8	1273.1	1290.0	1309.4	1314.2
35°	1219.9	1229.5	1248.9	1273.1	1277.9
37.5°	1178.7	1186.0	1210.2	1236.8	1244.1
40°	1127.9	1142.4	1166.6	1198.1	1210.2
42.5°	1077.1	1091.6	1120.6	1161.8	1176.3
45°	1023.8	1040.7	1077.1	1123.0	1142.4
47.5°	970.6	989.9	1031.1	1084.3	1106.1
50°	910.0	934.3	985.1	1045.6	1069.8
52.5°	852.0	881.0	936.7	1004.4	1035.9
55°	791.5	820.5	893.1	963.3	997.2
57.5°	723.7	762.4	842.3	922.1	958.5
60°	660.8	697.1	793.9	881.0	917.3
62.5°	593.0	641.4	745.5	837.4	873.7
65°	522.8	576.0	694.6	786.6	822.9
67.5°	459.9	518.0	643.8	735.8	772.1
70°	384.8	457.4	588.1	680.1	716.4
72.5°	314.6	394.5	530.1	619.6	653.5
75°	246.9	336.4	469.5	549.4	566.4
77.5°	183.9	278.3	406.6	440.5	428.4
80°	130.7	222.7	317.1	300.1	307.4
82.5°	84.7	169.4	196.0	222.7	229.9
85°	48.4	99.2	121.0	130.7	135.5
87.5°	21.8	36.3	48.4	48.4	46.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)