

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: P230902

Luminaire Tested: **14CZ-LD5-39-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230902
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ-LD5-39-UNV-L940-CD1-U
Description: CRUZE 1x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3493.0 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

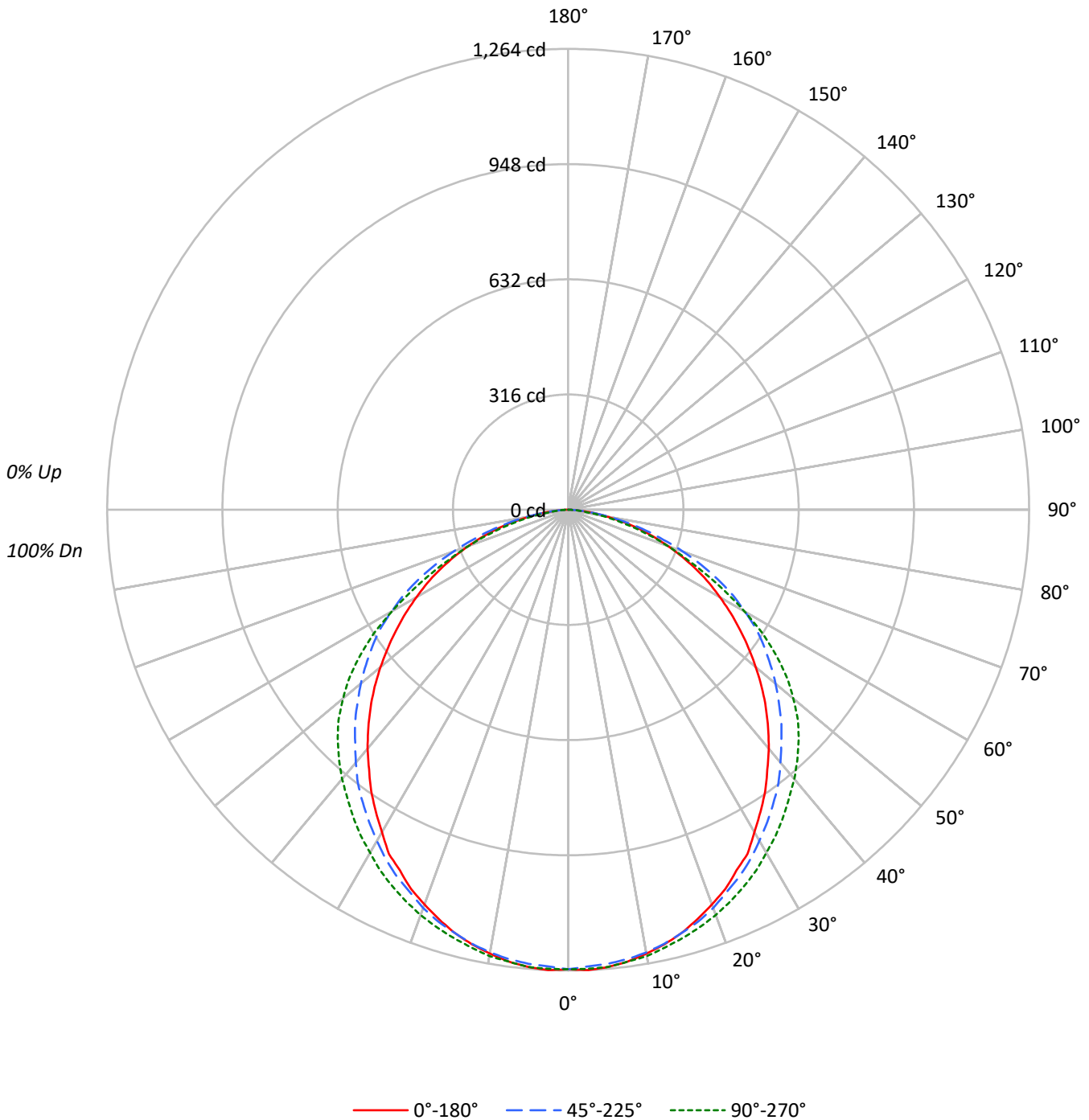
Input Watts (W): 35.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3392	3392	3392
5°	3400	3377	3400
10°	3378	3369	3397
15°	3349	3349	3387
20°	3299	3329	3388
25°	3242	3298	3385
30°	3173	3259	3376
35°	3094	3225	3377
40°	3006	3182	3387
45°	2916	3146	3401
50°	2812	3107	3374
55°	2699	3078	3264
60°	2585	3012	3003
65°	2467	2884	2632
70°	2290	2629	2276
75°	2077	2292	1880
80°	1655	1815	1387
85°	1170	1010	797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.3	3.4
10°-20°	340.7	9.8
20°-30°	513.7	14.7
30°-40°	615.8	17.6
40°-50°	639.0	18.3
50°-60°	576.4	16.5
60°-70°	420.4	12.0
70°-80°	220.6	6.3
80°-90°	47.1	1.3
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°	973.7	27.9
0°-40°	1589.5	45.5
0°-60°	2804.9	80.3
0°-90°	3493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3493.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1259	1255	1250	1259	1259	119
15°	1202	1202	1202	1216	1216	339
25°	1092	1097	1111	1135	1140	504
35°	942	952	982	1018	1028	588
45°	766	782	827	876	894	591
55°	575	596	656	699	696	515
65°	388	410	453	436	413	383
75°	200	227	220	191	181	209
85°	38	46	33	28	26	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1260.5	1260.5	1260.5	1260.5	1260.5
2.5°	1264.0	1260.5	1253.6	1260.5	1260.5
5°	1258.8	1255.4	1250.2	1258.8	1258.8
7.5°	1250.2	1246.7	1243.3	1251.9	1250.2
10°	1236.4	1234.7	1233.0	1243.3	1243.3
12.5°	1220.9	1220.9	1219.2	1231.3	1229.5
15°	1202.0	1202.0	1202.0	1215.8	1215.8
17.5°	1177.9	1181.3	1184.8	1200.3	1200.3
20°	1152.0	1155.5	1162.4	1181.3	1183.0
22.5°	1126.2	1127.9	1134.8	1157.2	1162.4
25°	1091.8	1096.9	1110.7	1134.8	1140.0
27.5°	1064.2	1065.9	1081.4	1109.0	1115.9
30°	1021.2	1033.2	1048.7	1079.7	1086.6
32.5°	981.6	991.9	1016.0	1048.7	1059.0
35°	941.9	952.3	981.6	1017.7	1028.1
37.5°	897.2	912.7	947.1	983.3	995.3
40°	855.8	869.6	905.8	950.6	964.3
42.5°	811.1	824.9	864.5	914.4	929.9
45°	766.3	781.8	826.6	876.5	893.7
47.5°	719.8	737.0	783.5	838.6	854.1
50°	671.6	690.5	742.2	799.0	805.9
52.5°	623.4	644.0	699.1	749.1	756.0
55°	575.2	595.8	656.1	699.1	695.7
57.5°	528.7	551.0	613.0	635.4	632.0
60°	480.4	504.6	559.7	570.0	557.9
62.5°	435.7	458.1	509.7	501.1	485.6
65°	387.5	409.8	452.9	435.7	413.3
67.5°	339.2	366.8	394.3	365.1	347.8
70°	291.0	322.0	334.1	304.8	289.3
72.5°	244.5	277.2	273.8	244.5	234.2
75°	199.8	227.3	220.4	191.1	180.8
77.5°	151.5	182.5	167.0	142.9	134.3
80°	106.8	134.3	117.1	96.4	89.5
82.5°	70.6	89.5	72.3	56.8	51.7
85°	37.9	46.5	32.7	27.6	25.8
87.5°	15.5	13.8	12.1	12.1	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)