

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: P387515

Luminaire Tested: **14CZ2-39HE-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: P387515  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39HE-SQR-UNV-L950-CD1-U  
Description: 1x4 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: 3452.7 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

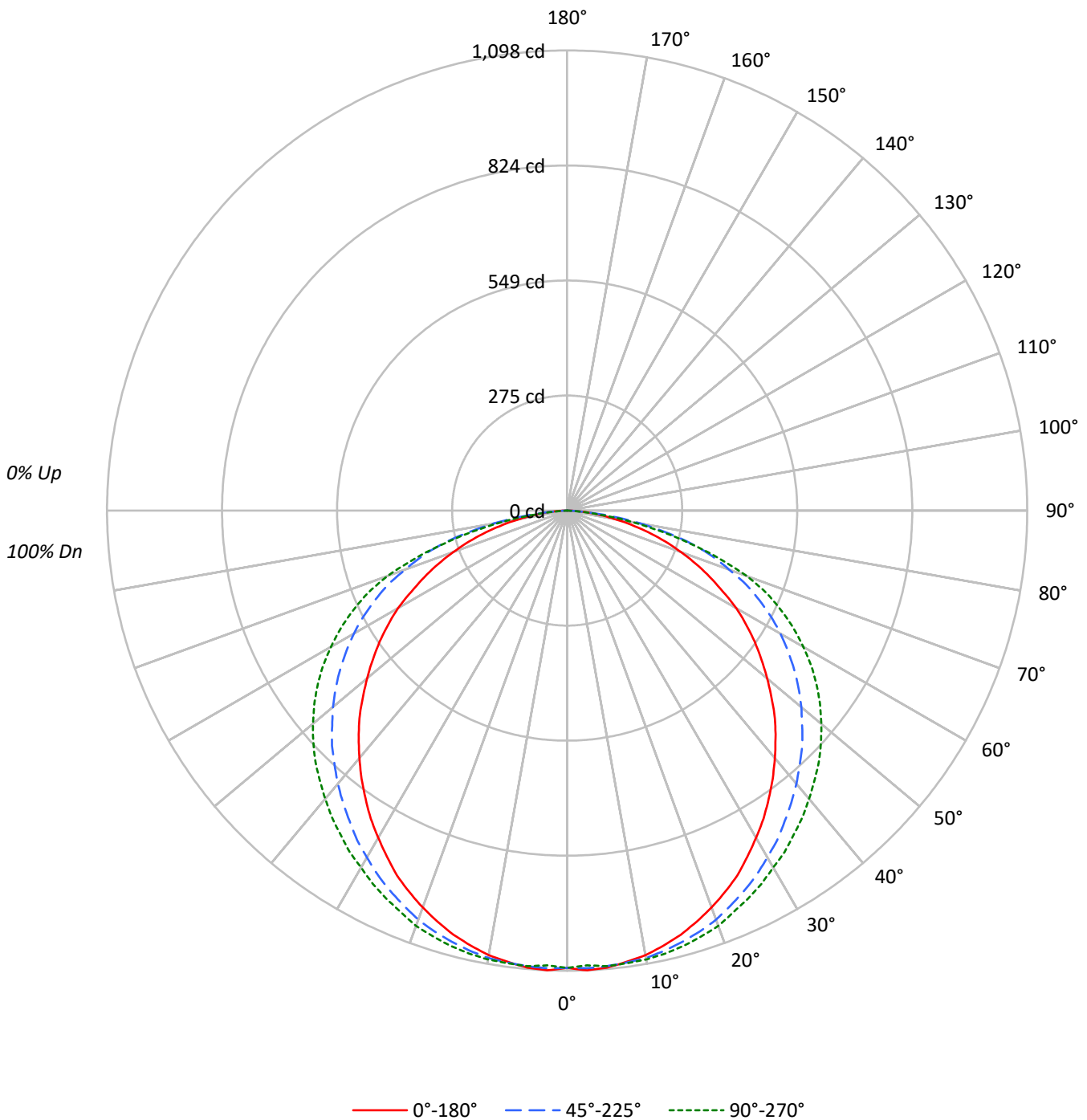
Input Watts (W): 29.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P387515

CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P387515

CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L950-CD1-U

**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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73		80	76	72		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	51		60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38		50	43	38		49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34		46	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

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

	0°	45°	90°
0°	2936	2936	2936
5°	2957	2947	2947
10°	2943	2962	2972
15°	2919	2967	2996
20°	2885	2975	3020
25°	2852	2971	3033
30°	2801	2969	3055
35°	2756	2973	3098
40°	2708	2989	3154
45°	2669	3020	3232
50°	2608	3052	3315
55°	2563	3103	3413
60°	2510	3166	3503
65°	2394	3224	3590
70°	2273	3231	3587
75°	2080	3220	3166
80°	1781	2751	2455
85°	1396	1559	914



TEST NUMBER: P387515

CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.7	3.0
10°-20°	299.5	8.7
20°-30°	458.1	13.3
30°-40°	561.5	16.3
40°-50°	603.9	17.5
50°-60°	580.3	16.8
60°-70°	483.2	14.0
70°-80°	296.5	8.6
80°-90°	66.1	1.9
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°	861.3	24.9
0°-40°	1422.8	41.2
0°-60°	2606.9	75.5
0°-90°	3452.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3452.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1095	1084	1091	1091	1091	104
15°	1048	1044	1065	1072	1075	295
25°	961	969	1001	1013	1022	442
35°	839	860	905	929	943	525
45°	701	733	794	830	849	540
55°	546	593	661	706	727	488
65°	376	433	506	548	564	372
75°	200	261	310	308	304	212
85°	45	68	50	35	30	54
90°	0	0	0	0	0	



TEST NUMBER: P387515

CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1091.1	1091.1	1091.1	1091.1	1091.1
2.5°	1098.0	1087.6	1092.8	1091.1	1085.9
5°	1094.6	1084.1	1091.1	1091.1	1091.1
7.5°	1085.9	1077.2	1087.6	1089.3	1089.3
10°	1077.2	1070.2	1084.1	1085.9	1087.6
12.5°	1063.2	1058.0	1075.4	1078.9	1082.4
15°	1047.6	1044.1	1065.0	1071.9	1075.4
17.5°	1028.4	1030.2	1052.8	1061.5	1065.0
20°	1007.6	1012.8	1038.9	1047.6	1054.5
22.5°	984.9	991.9	1019.7	1030.2	1037.1
25°	960.6	969.3	1000.6	1012.8	1021.5
27.5°	931.0	944.9	979.7	995.4	1004.1
30°	901.4	917.1	955.4	974.5	983.2
32.5°	871.8	889.2	932.7	951.9	965.8
35°	838.8	859.6	904.9	929.2	943.2
37.5°	805.7	830.1	878.8	906.6	922.3
40°	770.9	797.0	850.9	882.3	897.9
42.5°	736.1	765.7	821.4	856.2	873.6
45°	701.3	732.6	793.5	830.1	849.2
47.5°	661.3	699.5	760.5	802.2	821.4
50°	623.0	664.7	729.1	772.6	791.8
52.5°	584.7	628.2	696.1	741.3	760.5
55°	546.4	593.4	661.3	706.5	727.4
57.5°	506.4	555.1	624.7	671.7	690.8
60°	466.4	516.8	588.2	631.7	650.8
62.5°	419.4	478.5	548.2	591.7	609.1
65°	375.9	433.3	506.4	548.2	563.8
67.5°	332.4	391.5	462.9	501.2	515.1
70°	288.9	348.0	410.7	447.2	455.9
72.5°	245.4	304.5	363.7	384.6	381.1
75°	200.1	261.0	309.7	308.0	304.5
77.5°	156.6	215.8	245.4	233.2	228.0
80°	114.9	172.3	177.5	165.3	158.4
82.5°	78.3	123.6	111.4	97.4	90.5
85°	45.2	67.9	50.5	34.8	29.6
87.5°	19.1	17.4	5.2	5.2	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)