

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: P387940

Luminaire Tested: **22CZ2-39HE-SQR-UNV-L935-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: P387940
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-SQR-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3151.5 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

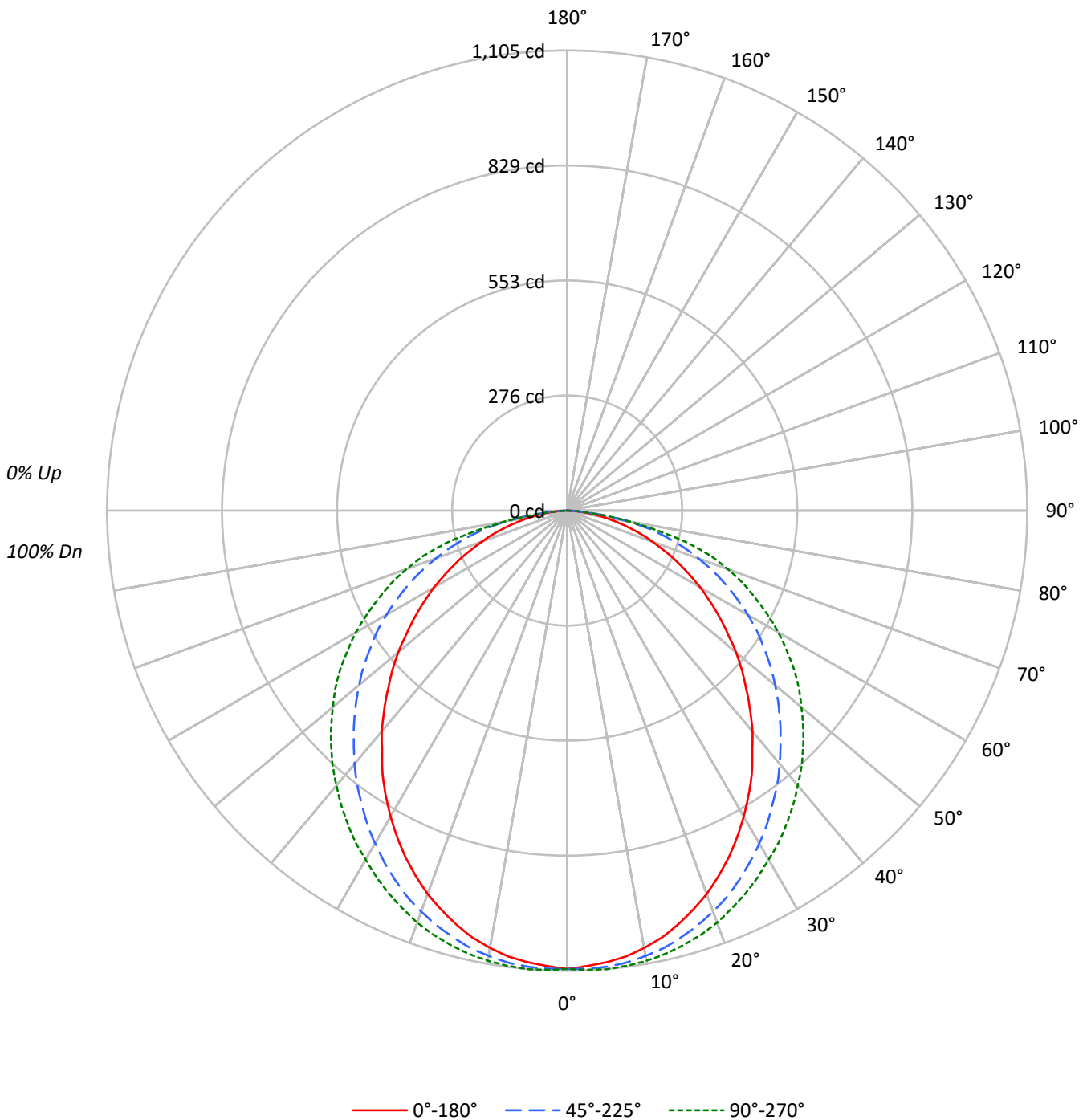
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2962	2962	2962
5°	2941	2970	2986
10°	2914	2967	3000
15°	2867	2954	3009
20°	2806	2934	3015
25°	2727	2904	3011
30°	2635	2868	3007
35°	2540	2825	3017
40°	2433	2790	3027
45°	2317	2755	3051
50°	2217	2730	3075
55°	2098	2709	3123
60°	1989	2697	3155
65°	1857	2676	3181
70°	1707	2637	3224
75°	1540	2566	3111
80°	1322	2272	2342
85°	1062	1340	1062



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	3.3
10°-20°	298.4	9.5
20°-30°	448.2	14.2
30°-40°	534.5	17.0
40°-50°	552.7	17.5
50°-60°	508.1	16.1
60°-70°	404.5	12.8
70°-80°	247.1	7.8
80°-90°	53.7	1.7
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°	850.9	27.0
0°-40°	1385.4	44.0
0°-60°	2446.2	77.6
0°-90°	3151.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3151.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1101	1101	1101	1101	1101	
5°	1089	1092	1099	1104	1105	103
15°	1029	1041	1060	1076	1080	290
25°	918	941	978	1005	1014	422
35°	773	806	860	905	918	482
45°	609	652	724	782	802	471
55°	447	497	577	643	666	400
65°	292	341	420	479	500	289
75°	148	192	247	290	299	158
85°	34	42	43	37	34	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1100.9	1100.9	1100.9	1100.9	1100.9
2.5°	1094.9	1096.4	1100.9	1103.9	1103.9
5°	1088.9	1091.9	1099.4	1103.9	1105.4
7.5°	1080.0	1084.4	1094.9	1100.9	1102.4
10°	1066.5	1072.5	1085.9	1094.9	1097.9
12.5°	1050.0	1059.0	1075.5	1087.4	1090.4
15°	1029.1	1041.1	1060.5	1075.5	1080.0
17.5°	1005.2	1020.1	1044.1	1062.0	1068.0
20°	979.7	994.7	1024.6	1045.6	1053.0
22.5°	949.8	969.3	1003.7	1027.6	1033.6
25°	918.4	940.8	978.2	1005.2	1014.1
27.5°	884.0	910.9	951.3	984.2	991.7
30°	848.1	876.5	922.9	958.8	967.8
32.5°	810.7	843.6	893.0	933.4	945.3
35°	773.3	806.2	860.1	904.9	918.4
37.5°	729.9	768.8	828.7	875.0	891.5
40°	692.5	729.9	794.3	845.1	861.6
42.5°	650.7	691.1	758.4	813.7	833.2
45°	608.8	652.2	724.0	782.3	801.7
47.5°	569.9	613.3	688.1	749.4	768.8
50°	529.5	574.4	652.2	715.0	734.4
52.5°	486.1	535.5	616.3	679.1	701.5
55°	447.2	496.6	577.4	643.2	665.6
57.5°	406.9	457.7	541.5	604.3	625.2
60°	369.5	418.8	501.1	562.4	586.3
62.5°	329.1	379.9	460.7	520.5	543.0
65°	291.7	341.0	420.3	478.6	499.6
67.5°	254.3	303.6	378.4	433.8	457.7
70°	216.9	266.2	335.1	388.9	409.8
72.5°	184.0	227.4	293.2	342.5	362.0
75°	148.1	191.5	246.8	290.2	299.2
77.5°	115.2	154.1	200.4	219.9	222.9
80°	85.3	115.2	146.6	151.1	151.1
82.5°	56.8	79.3	91.2	92.7	91.2
85°	34.4	41.9	43.4	37.4	34.4
87.5°	12.0	12.0	7.5	4.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)