

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: P387577

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L930-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: P387577  
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: 14CZ2-60HE-SQR-UNV-L930-CD1-SWPD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4711.8 lumens  
Efficiency: N/A  
Efficacy: 97.6 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

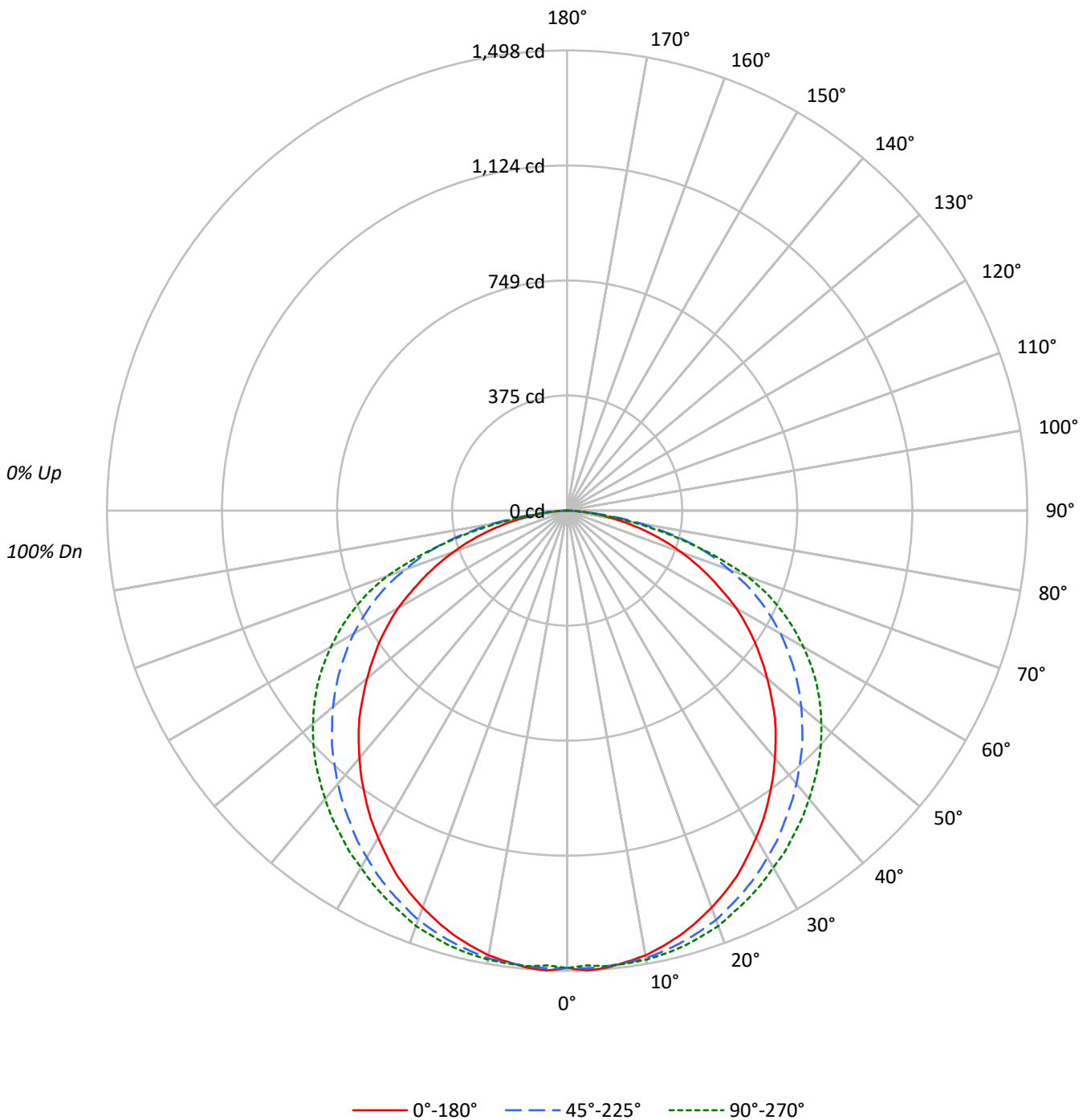
Input Watts (W): 48.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4007	4007	4007
5°	4035	4022	4022
10°	4017	4043	4056
15°	3983	4049	4089
20°	3938	4060	4121
25°	3892	4054	4139
30°	3822	4051	4169
35°	3760	4057	4228
40°	3695	4079	4305
45°	3642	4121	4410
50°	3559	4165	4523
55°	3499	4234	4657
60°	3425	4320	4780
65°	3266	4401	4899
70°	3102	4409	4895
75°	2839	4395	4321
80°	2428	3753	3349
85°	1905	2127	1247



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.5	3.0
10°-20°	408.8	8.7
20°-30°	625.1	13.3
30°-40°	766.2	16.3
40°-50°	824.1	17.5
50°-60°	791.9	16.8
60°-70°	659.4	14.0
70°-80°	404.7	8.6
80°-90°	90.2	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°	1175.4	24.9
0°-40°	1941.6	41.2
0°-60°	3557.6	75.5
0°-90°	4711.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4711.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1489	1489	1489	1489	1489	
5°	1494	1480	1489	1489	1489	142
15°	1430	1425	1453	1463	1468	403
25°	1311	1323	1366	1382	1394	603
35°	1145	1173	1235	1268	1287	716
45°	957	1000	1083	1133	1159	736
55°	746	810	902	964	993	666
65°	513	591	691	748	769	508
75°	273	356	423	420	416	289
85°	62	93	69	48	40	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1489.0	1489.0	1489.0	1489.0	1489.0
2.5°	1498.5	1484.2	1491.3	1489.0	1481.8
5°	1493.7	1479.5	1489.0	1489.0	1489.0
7.5°	1481.8	1470.0	1484.2	1486.6	1486.6
10°	1470.0	1460.5	1479.5	1481.8	1484.2
12.5°	1451.0	1443.8	1467.6	1472.3	1477.1
15°	1429.6	1424.9	1453.3	1462.8	1467.6
17.5°	1403.5	1405.9	1436.7	1448.6	1453.3
20°	1375.0	1382.1	1417.7	1429.6	1439.1
22.5°	1344.1	1353.6	1391.6	1405.9	1415.4
25°	1310.9	1322.7	1365.5	1382.1	1394.0
27.5°	1270.5	1289.5	1337.0	1358.4	1370.2
30°	1230.1	1251.5	1303.7	1329.9	1341.7
32.5°	1189.8	1213.5	1272.9	1299.0	1318.0
35°	1144.6	1173.1	1234.9	1268.1	1287.1
37.5°	1099.5	1132.8	1199.2	1237.2	1258.6
40°	1052.0	1087.6	1161.3	1204.0	1225.4
42.5°	1004.5	1044.9	1120.9	1168.4	1192.1
45°	957.0	999.8	1082.9	1132.8	1158.9
47.5°	902.4	954.7	1037.8	1094.8	1120.9
50°	850.2	907.2	995.0	1054.4	1080.5
52.5°	797.9	857.3	949.9	1011.6	1037.8
55°	745.7	809.8	902.4	964.1	992.6
57.5°	691.1	757.5	852.5	916.7	942.8
60°	636.4	705.3	802.7	862.0	888.2
62.5°	572.3	653.1	748.0	807.4	831.2
65°	512.9	591.3	691.1	748.0	769.4
67.5°	453.6	534.3	631.7	683.9	702.9
70°	394.2	475.0	560.4	610.3	622.2
72.5°	334.8	415.6	496.3	524.8	520.1
75°	273.1	356.2	422.7	420.3	415.6
77.5°	213.7	294.5	334.8	318.2	311.1
80°	156.7	235.1	242.2	225.6	216.1
82.5°	106.9	168.6	152.0	133.0	123.5
85°	61.7	92.6	68.9	47.5	40.4
87.5°	26.1	23.7	7.1	7.1	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)