

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: P387576

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L930-CD1-SDWPD1-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: P387576  
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-SDWPD1-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: 4654.9 lumens  
Efficiency: N/A  
Efficacy: 96.4 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

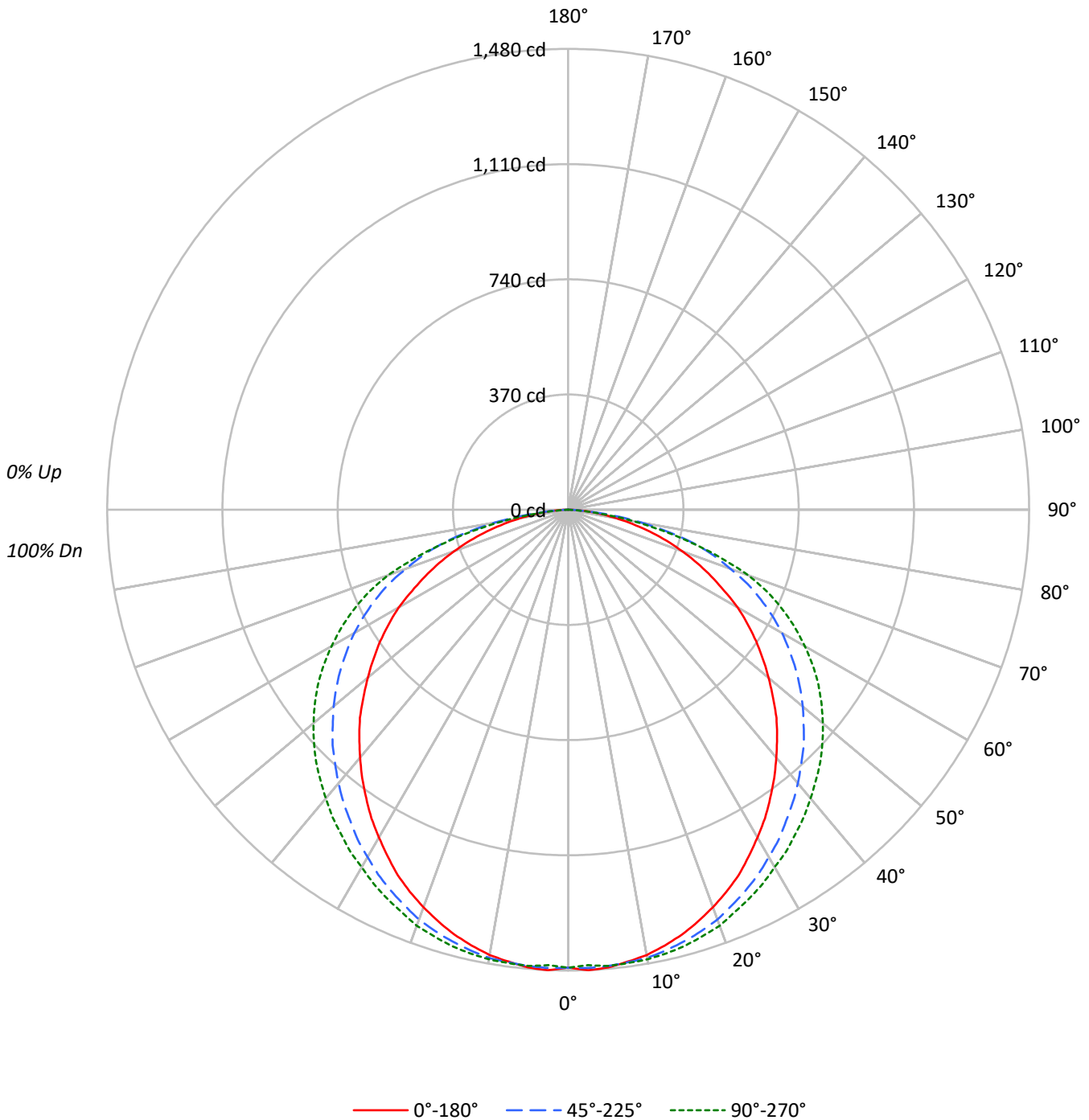
Input Watts (W): 48.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3958	3958	3958
5°	3986	3974	3974
10°	3968	3994	4007
15°	3935	4000	4039
20°	3890	4011	4071
25°	3845	4005	4089
30°	3776	4002	4119
35°	3715	4008	4177
40°	3651	4030	4253
45°	3598	4071	4357
50°	3516	4115	4469
55°	3456	4183	4601
60°	3384	4268	4722
65°	3227	4347	4840
70°	3064	4356	4836
75°	2805	4342	4269
80°	2399	3708	3309
85°	1883	2100	1232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.8	3.0
10°-20°	403.8	8.7
20°-30°	617.6	13.3
30°-40°	757.0	16.3
40°-50°	814.1	17.5
50°-60°	782.3	16.8
60°-70°	651.4	14.0
70°-80°	399.8	8.6
80°-90°	89.1	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°	1161.2	24.9
0°-40°	1918.2	41.2
0°-60°	3514.6	75.5
0°-90°	4654.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4654.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1476	1462	1471	1471	1471	140
15°	1412	1408	1436	1445	1450	398
25°	1295	1307	1349	1365	1377	596
35°	1131	1159	1220	1253	1272	708
45°	946	988	1070	1119	1145	728
55°	737	800	892	952	981	658
65°	507	584	683	739	760	502
75°	270	352	418	415	411	286
85°	61	92	68	47	40	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1471.0	1471.0	1471.0	1471.0	1471.0
2.5°	1480.4	1466.3	1473.3	1471.0	1464.0
5°	1475.7	1461.6	1471.0	1471.0	1471.0
7.5°	1464.0	1452.2	1466.3	1468.6	1468.6
10°	1452.2	1442.8	1461.6	1464.0	1466.3
12.5°	1433.5	1426.4	1449.9	1454.6	1459.3
15°	1412.3	1407.6	1435.8	1445.2	1449.9
17.5°	1386.5	1388.9	1419.4	1431.1	1435.8
20°	1358.4	1365.4	1400.6	1412.3	1421.7
22.5°	1327.9	1337.3	1374.8	1388.9	1398.3
25°	1295.0	1306.8	1349.0	1365.4	1377.1
27.5°	1255.1	1273.9	1320.8	1342.0	1353.7
30°	1215.3	1236.4	1288.0	1313.8	1325.5
32.5°	1175.4	1198.8	1257.5	1283.3	1302.1
35°	1130.8	1159.0	1220.0	1252.8	1271.6
37.5°	1086.2	1119.1	1184.8	1222.3	1243.4
40°	1039.3	1074.5	1147.2	1189.5	1210.6
42.5°	992.4	1032.3	1107.3	1154.3	1177.7
45°	945.5	987.7	1069.8	1119.1	1144.9
47.5°	891.5	943.1	1025.2	1081.5	1107.3
50°	839.9	896.2	983.0	1041.7	1067.5
52.5°	788.3	846.9	938.4	999.4	1025.2
55°	736.7	800.0	891.5	952.5	980.7
57.5°	682.7	748.4	842.2	905.6	931.4
60°	628.7	696.8	793.0	851.6	877.4
62.5°	565.4	645.2	739.0	797.7	821.1
65°	506.8	584.2	682.7	739.0	760.1
67.5°	448.1	527.9	624.1	675.7	694.4
70°	389.4	469.2	553.7	602.9	614.7
72.5°	330.8	410.6	490.3	518.5	513.8
75°	269.8	351.9	417.6	415.3	410.6
77.5°	211.1	290.9	330.8	314.4	307.3
80°	154.8	232.3	239.3	222.9	213.5
82.5°	105.6	166.6	150.1	131.4	122.0
85°	61.0	91.5	68.0	46.9	39.9
87.5°	25.8	23.5	7.0	7.0	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)