

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: P387582

Luminaire Tested: **14CZ2-60HE-SQR-UNV-L940-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: P387582
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-L940-CD1-SDWPD1-U
Description: 1x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4819.4 lumens
Efficiency: N/A
Efficacy: 99.8 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

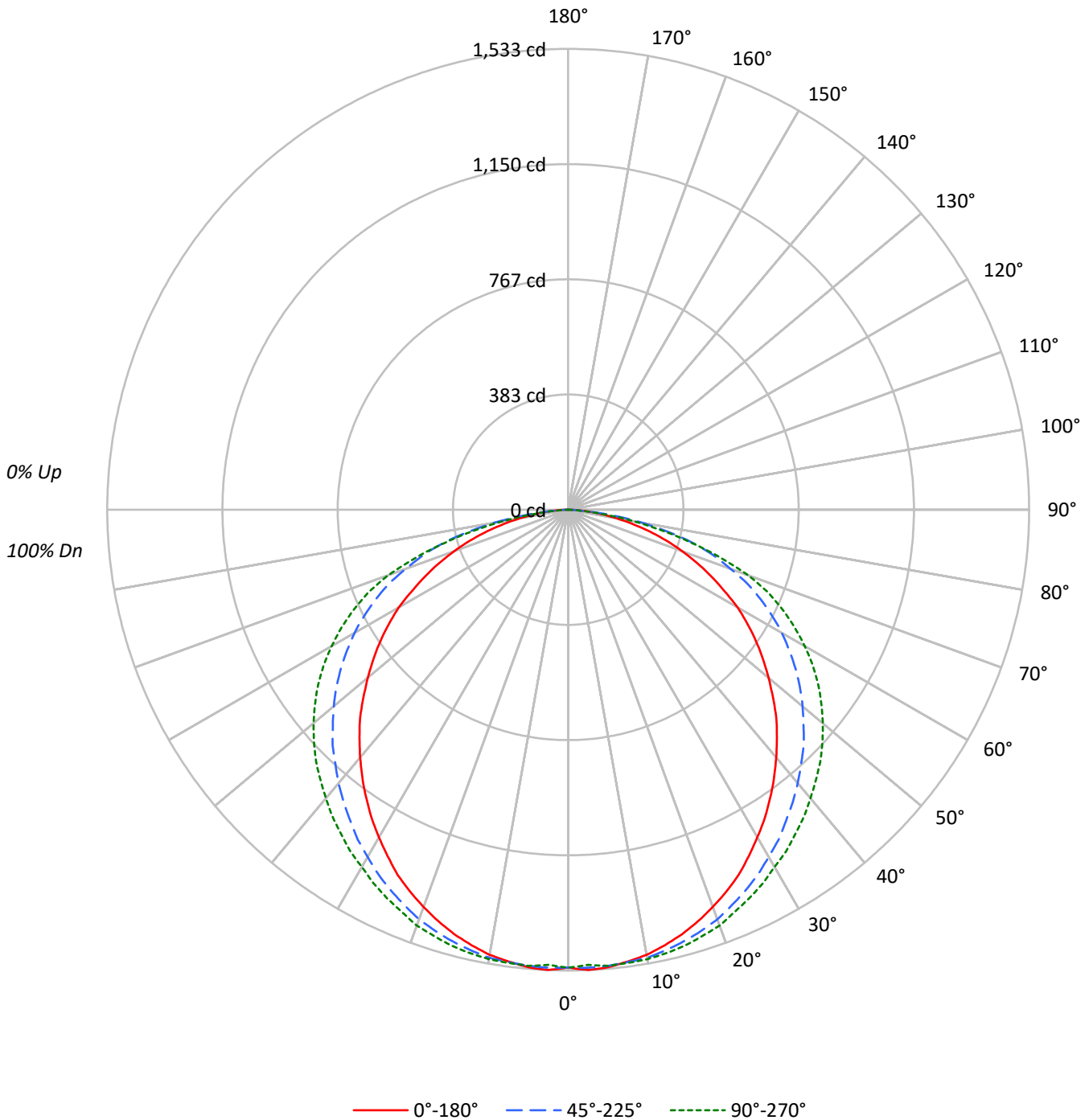
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4098	4098	4098
5°	4127	4114	4114
10°	4108	4135	4148
15°	4074	4141	4182
20°	4027	4153	4215
25°	3981	4147	4233
30°	3910	4144	4264
35°	3846	4149	4325
40°	3780	4173	4403
45°	3725	4215	4511
50°	3641	4261	4627
55°	3578	4330	4763
60°	3504	4419	4889
65°	3341	4500	5011
70°	3172	4510	5007
75°	2904	4496	4420
80°	2484	3840	3425
85°	1951	2174	1275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	3.0
10°-20°	418.1	8.7
20°-30°	639.4	13.3
30°-40°	783.7	16.3
40°-50°	842.9	17.5
50°-60°	810.0	16.8
60°-70°	674.4	14.0
70°-80°	413.9	8.6
80°-90°	92.2	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°	1202.2	24.9
0°-40°	1986.0	41.2
0°-60°	3638.8	75.5
0°-90°	4819.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4819.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1523	1523	1523	1523	1523	
5°	1528	1513	1523	1523	1523	145
15°	1462	1457	1486	1496	1501	412
25°	1341	1353	1397	1414	1426	617
35°	1171	1200	1263	1297	1316	733
45°	979	1023	1108	1159	1185	753
55°	763	828	923	986	1015	681
65°	525	605	707	765	787	520
75°	279	364	432	430	425	296
85°	63	95	70	49	41	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1523.0	1523.0	1523.0	1523.0	1523.0
2.5°	1532.7	1518.1	1525.4	1523.0	1515.7
5°	1527.8	1513.3	1523.0	1523.0	1523.0
7.5°	1515.7	1503.5	1518.1	1520.5	1520.5
10°	1503.5	1493.8	1513.3	1515.7	1518.1
12.5°	1484.1	1476.8	1501.1	1506.0	1510.8
15°	1462.2	1457.4	1486.5	1496.3	1501.1
17.5°	1435.5	1438.0	1469.5	1481.7	1486.5
20°	1406.4	1413.7	1450.1	1462.2	1472.0
22.5°	1374.8	1384.5	1423.4	1438.0	1447.7
25°	1340.8	1352.9	1396.7	1413.7	1425.8
27.5°	1299.5	1318.9	1367.5	1389.4	1401.5
30°	1258.2	1280.1	1333.5	1360.2	1372.4
32.5°	1216.9	1241.2	1301.9	1328.7	1348.1
35°	1170.8	1199.9	1263.1	1297.1	1316.5
37.5°	1124.6	1158.6	1226.6	1265.5	1287.4
40°	1076.0	1112.5	1187.8	1231.5	1253.4
42.5°	1027.5	1068.8	1146.5	1195.1	1219.3
45°	978.9	1022.6	1107.6	1158.6	1185.3
47.5°	923.0	976.5	1061.5	1119.8	1146.5
50°	869.6	927.9	1017.7	1078.5	1105.2
52.5°	816.1	876.9	971.6	1034.7	1061.5
55°	762.7	828.3	923.0	986.2	1015.3
57.5°	706.8	774.8	872.0	937.6	964.3
60°	651.0	721.4	821.0	881.7	908.4
62.5°	585.4	668.0	765.1	825.9	850.1
65°	524.7	604.8	706.8	765.1	787.0
67.5°	463.9	546.5	646.1	699.5	719.0
70°	403.2	485.8	573.2	624.2	636.4
72.5°	342.5	425.1	507.7	536.8	531.9
75°	279.3	364.3	432.4	429.9	425.1
77.5°	218.6	301.2	342.5	325.5	318.2
80°	160.3	240.5	247.8	230.8	221.0
82.5°	109.3	172.5	155.5	136.0	126.3
85°	63.2	94.7	70.4	48.6	41.3
87.5°	26.7	24.3	7.3	7.3	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)