

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: P294830

Luminaire Tested: **22CZ2-20-HRP-UNV-L950-CD1-U**

Issue Date: 12/2/2019

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: P294830
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-HRP-UNV-L950-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (56) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

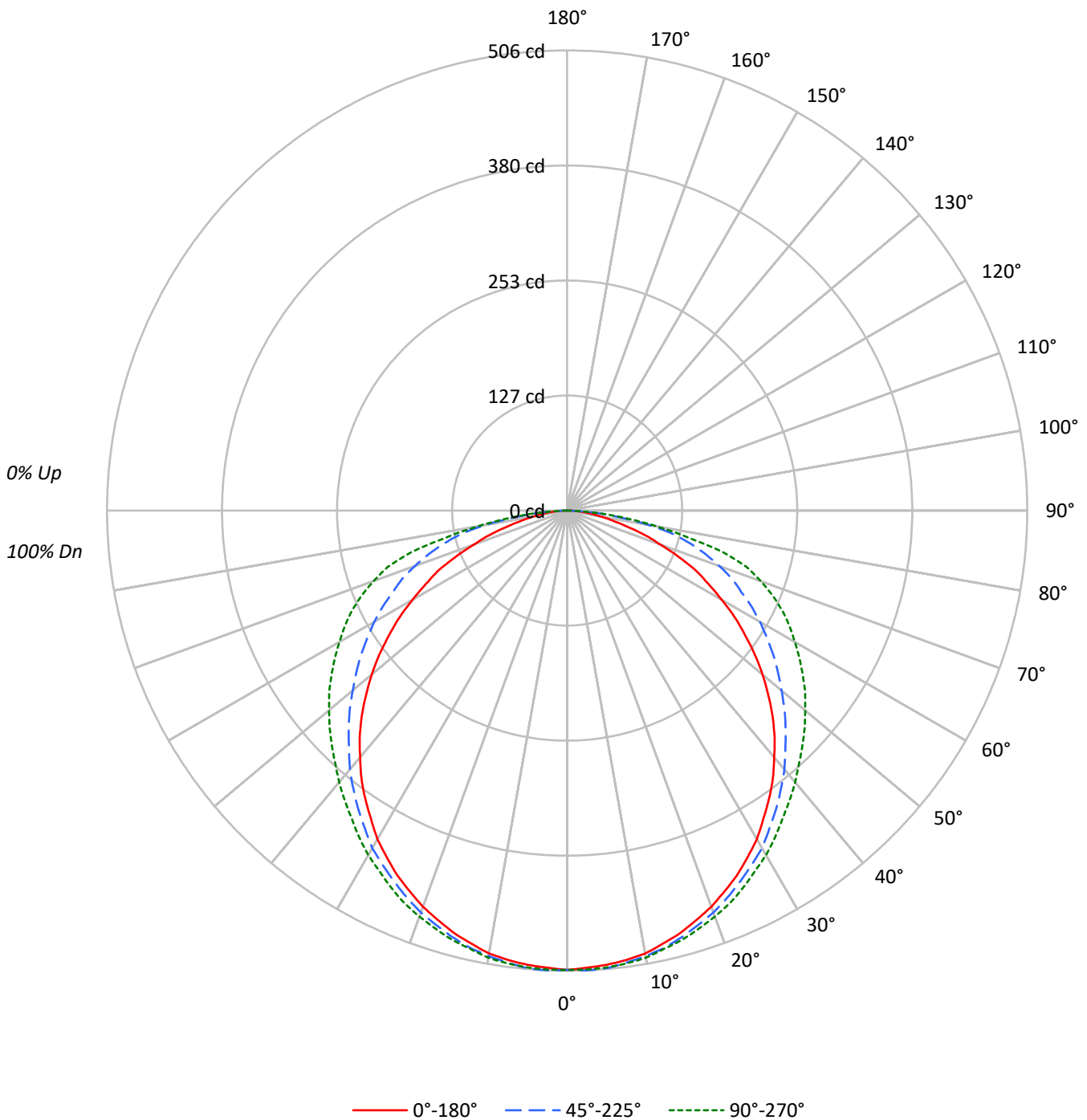
Lumens per Lamp: N/A
Luminaire Lumens: 1534.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 17.9
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	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	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	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1359	1359	1359
5°	1354	1364	1362
10°	1351	1359	1364
15°	1340	1353	1361
20°	1327	1347	1361
25°	1313	1336	1359
30°	1296	1332	1359
35°	1272	1316	1357
40°	1244	1305	1370
45°	1215	1293	1392
50°	1175	1288	1430
55°	1121	1299	1484
60°	1057	1318	1557
65°	998	1344	1664
70°	853	1401	1781
75°	714	1459	1852
80°	584	1410	1545
85°	509	1047	1136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	3.1
10°-20°	136.9	8.9
20°-30°	207.5	13.5
30°-40°	250.6	16.3
40°-50°	263.3	17.2
50°-60°	247.8	16.2
60°-70°	206.6	13.5
70°-80°	136.9	8.9
80°-90°	36.5	2.4
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°	392.4	25.6
0°-40°	643.0	41.9
0°-60°	1154.1	75.2
0°-90°	1534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1534.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	505	505	505	505	505	
5°	501	502	505	505	504	48
15°	481	483	486	488	489	136
25°	442	445	450	456	458	204
35°	387	391	401	409	413	242
45°	319	324	340	357	366	246
55°	239	250	277	305	316	214
65°	157	170	211	246	261	153
75°	69	96	140	169	178	75
85°	16	25	34	37	37	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	505.1	505.1	505.1	505.1	505.1
2.5°	503.2	504.2	506.1	506.1	505.1
5°	501.3	502.2	505.1	505.1	504.2
7.5°	498.4	499.3	501.3	503.2	502.2
10°	494.5	495.5	497.4	499.3	499.3
12.5°	487.7	488.7	492.5	493.5	493.5
15°	480.9	482.9	485.8	487.7	488.7
17.5°	472.2	474.2	478.0	481.9	481.9
20°	463.5	465.5	470.3	474.2	475.1
22.5°	452.9	455.8	460.6	465.5	467.4
25°	442.2	445.1	450.0	455.8	457.7
27.5°	429.6	432.6	439.3	446.1	447.1
30°	417.1	420.0	428.7	434.5	437.4
32.5°	401.6	405.5	414.2	422.9	425.8
35°	387.1	390.9	400.6	409.3	413.2
37.5°	371.6	375.5	386.1	396.7	401.6
40°	354.2	359.0	371.6	383.2	390.0
42.5°	337.7	342.6	355.1	370.6	377.4
45°	319.3	324.2	339.7	357.1	365.8
47.5°	300.0	305.8	324.2	345.5	354.2
50°	280.6	287.4	307.7	331.9	341.6
52.5°	260.3	269.0	292.2	318.4	330.0
55°	239.0	249.7	276.8	304.8	316.4
57.5°	218.7	228.4	260.3	290.3	302.9
60°	196.4	209.0	244.8	275.8	289.3
62.5°	175.2	188.7	228.4	261.3	275.8
65°	156.8	170.3	211.0	245.8	261.3
67.5°	132.6	151.0	196.4	229.3	244.8
70°	108.4	133.5	178.1	211.9	226.4
72.5°	90.0	114.2	159.7	193.5	207.1
75°	68.7	95.8	140.3	169.3	178.1
77.5°	51.3	79.3	120.0	134.5	135.5
80°	37.7	61.0	91.0	95.8	99.7
82.5°	26.1	42.6	59.0	64.8	66.8
85°	16.5	25.2	33.9	36.8	36.8
87.5°	8.7	9.7	11.6	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)