

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: P393515

Luminaire Tested: **24EN-LD2-45-UNV-L83050-W2A-1-U (3000K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393515
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-34)
Test Lab: INNOVATION CENTER
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24EN-LD2-45-UNV-L83050-W2A-1-U (3000K)
Description: 2X4 ENCOUNTER, 4500 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4508.0 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

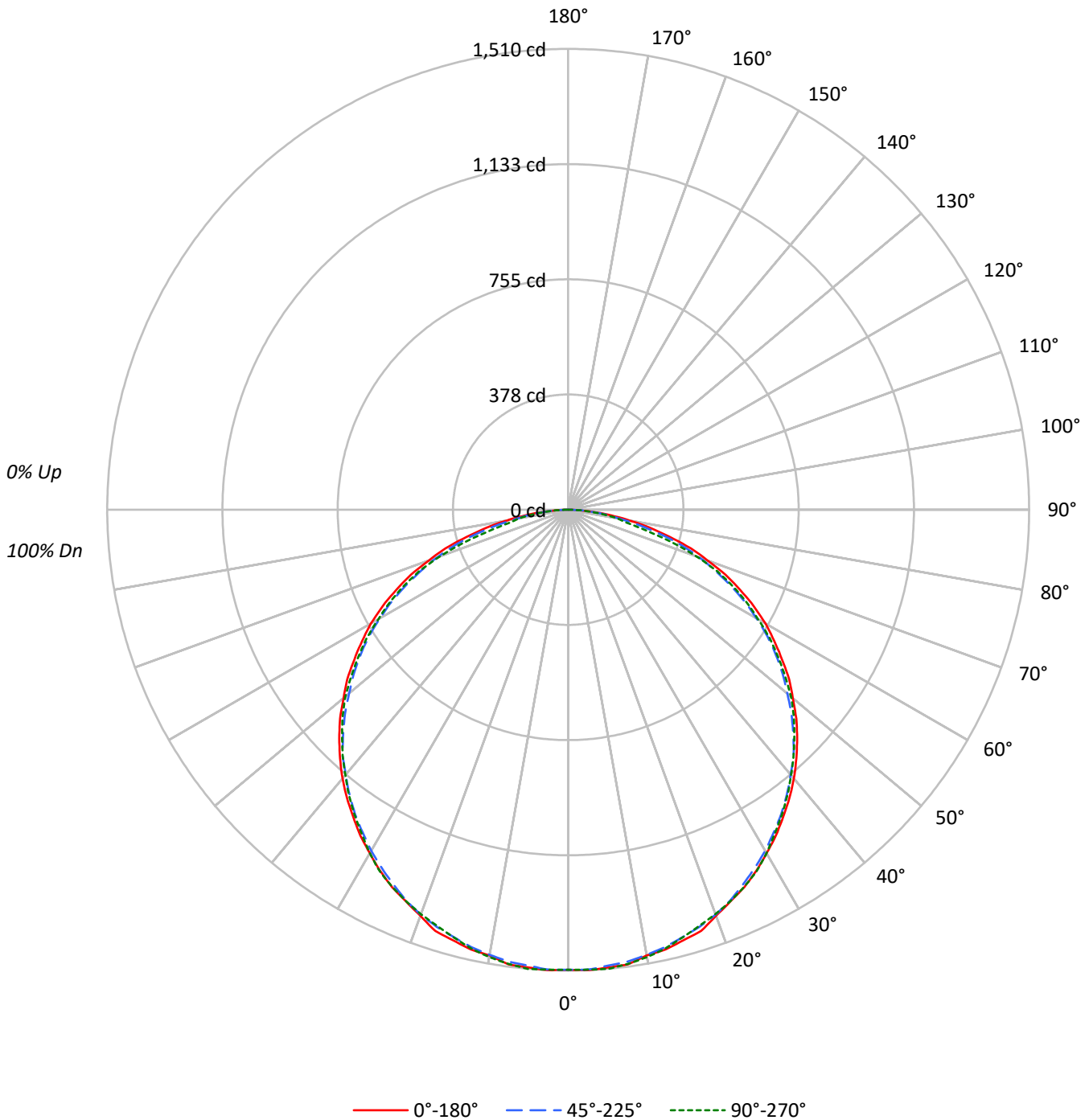
Input Watts (W): 32.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2028	2028	2028
5°	2033	2025	2040
10°	2026	2023	2034
15°	2034	2019	2020
20°	2027	2022	2019
25°	2026	2011	2025
30°	2019	2004	2019
35°	2017	1999	2004
40°	2020	1991	1994
45°	2018	1985	1992
50°	2010	1961	1994
55°	2006	1950	1966
60°	2007	1917	1933
65°	1977	1867	1898
70°	1908	1800	1757
75°	1785	1652	1376
80°	1578	1327	1273
85°	1291	1170	1064



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.8	3.2
10°-20°	410.2	9.1
20°-30°	625.9	13.9
30°-40°	763.6	16.9
40°-50°	808.2	17.9
50°-60°	749.6	16.6
60°-70°	589.3	13.1
70°-80°	330.2	7.3
80°-90°	88.2	2.0
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°	1179.0	26.2
0°-40°	1942.5	43.1
0°-60°	3500.3	77.6
0°-90°	4508.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4508.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1507	1507	1507	1507	1507	
5°	1505	1502	1500	1499	1510	143
15°	1460	1454	1449	1452	1450	412
25°	1365	1358	1355	1356	1364	629
35°	1228	1224	1217	1217	1220	769
45°	1061	1054	1043	1040	1047	818
55°	855	845	831	832	838	765
65°	621	604	586	590	596	614
75°	343	336	318	278	265	365
85°	84	77	76	72	69	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1507.4	1507.4	1507.4	1507.4	1507.4
2.5°	1510.4	1505.4	1508.4	1502.5	1508.4
5°	1505.4	1502.5	1499.5	1498.6	1510.4
7.5°	1502.5	1496.6	1493.6	1490.7	1500.5
10°	1482.8	1484.8	1480.8	1481.8	1488.7
12.5°	1475.9	1470.0	1468.0	1468.0	1472.0
15°	1460.2	1454.3	1449.4	1452.3	1450.3
17.5°	1447.4	1431.6	1432.6	1432.6	1429.7
20°	1415.9	1409.0	1412.0	1407.0	1410.0
22.5°	1389.3	1385.4	1386.4	1381.5	1388.3
25°	1364.7	1357.8	1354.9	1355.9	1363.7
27.5°	1334.2	1327.3	1323.4	1322.4	1336.2
30°	1299.8	1294.9	1290.0	1290.0	1299.8
32.5°	1266.3	1259.5	1253.5	1252.6	1258.5
35°	1228.0	1224.0	1217.1	1217.1	1220.1
37.5°	1190.6	1182.7	1176.8	1177.8	1179.8
40°	1150.2	1142.4	1133.5	1133.5	1135.5
42.5°	1106.0	1099.1	1093.2	1089.2	1093.2
45°	1060.7	1053.8	1043.0	1040.0	1046.9
47.5°	1013.5	1004.6	991.8	993.8	1002.6
50°	960.3	951.5	936.7	941.6	952.5
52.5°	912.1	901.3	885.6	890.5	895.4
55°	855.0	845.2	831.4	832.4	838.3
57.5°	799.9	789.1	774.4	773.4	782.2
60°	745.8	731.1	712.4	713.4	718.3
62.5°	685.8	670.1	651.4	651.4	660.2
65°	620.9	604.1	586.4	590.4	596.3
67.5°	557.9	536.3	520.5	522.5	529.4
70°	485.1	470.3	457.5	450.6	446.7
72.5°	421.1	400.5	390.6	366.0	358.2
75°	343.4	335.5	317.8	278.5	264.7
77.5°	274.5	266.6	243.0	200.7	192.9
80°	203.7	205.6	171.2	164.3	164.3
82.5°	142.7	136.8	125.0	119.1	116.1
85°	83.6	76.7	75.8	71.8	68.9
87.5°	27.6	31.5	30.5	31.5	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)