

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: P393518

Luminaire Tested: **24EN-LD2-45-UNV-L83050-W2A-1-U (4500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393518
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 (4500K)
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: 4663.2 lumens
Efficiency: N/A
Efficacy: 147.1 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

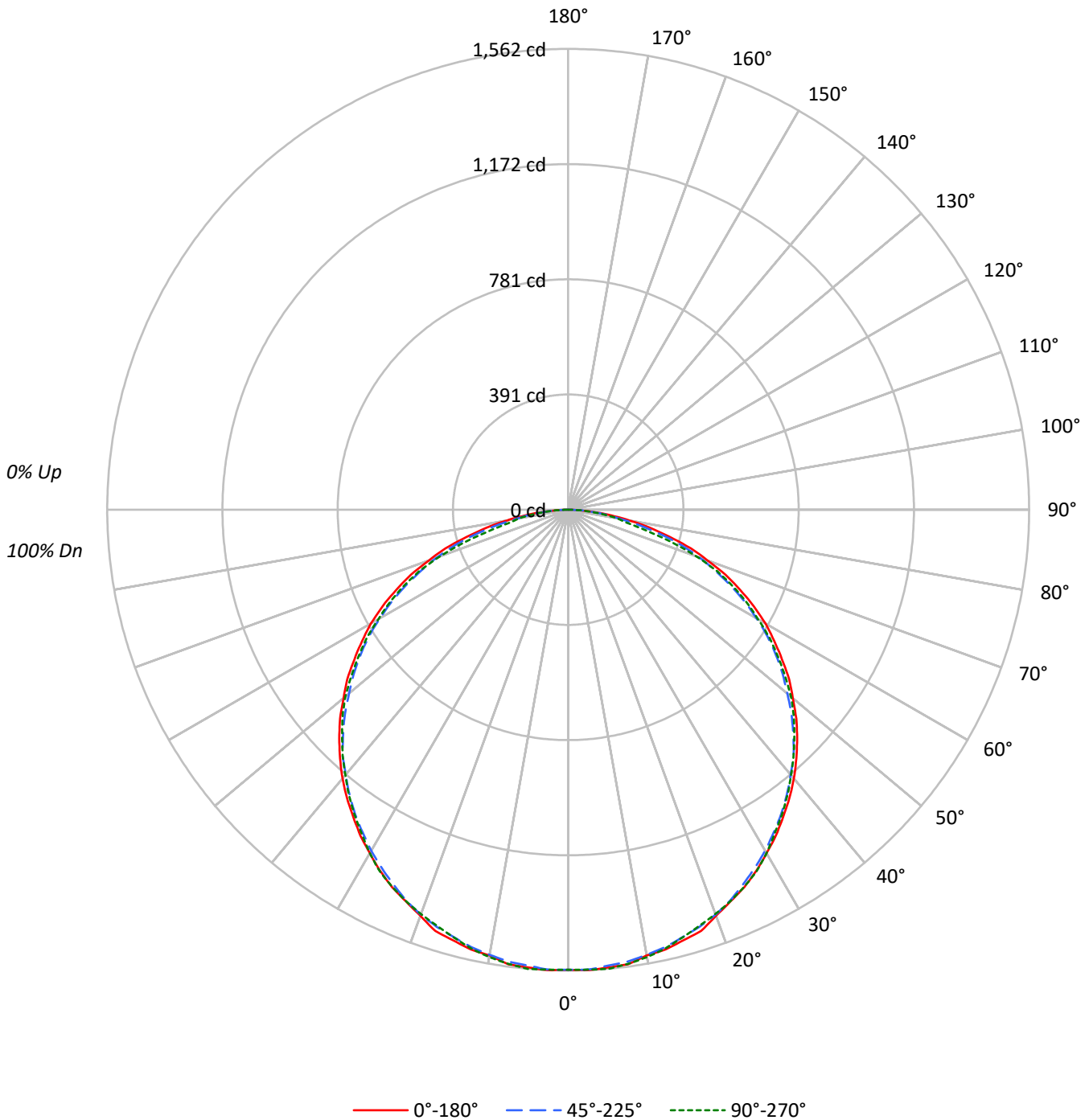
Input Watts (W): 31.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P393518

CATALOG NUMBER: 24EN-LD2-45-UNV-L83050-W2A-1-U (4500K)

Luminous Intensity Polar Plot





TEST NUMBER: P393518

CATALOG NUMBER: 24EN-LD2-45-UNV-L83050-W2A-1-U (4500K)

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°	2098	2098	2098
5°	2103	2095	2110
10°	2096	2093	2104
15°	2104	2088	2090
20°	2097	2091	2088
25°	2096	2081	2094
30°	2089	2073	2089
35°	2086	2068	2073
40°	2090	2059	2063
45°	2088	2053	2061
50°	2079	2028	2062
55°	2075	2018	2034
60°	2076	1983	1999
65°	2045	1931	1964
70°	1974	1862	1818
75°	1847	1709	1423
80°	1633	1372	1317
85°	1335	1210	1099



TEST NUMBER: P393518

CATALOG NUMBER: 24EN-LD2-45-UNV-L83050-W2A-1-U (4500K)

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.7	3.2
10°-20°	424.3	9.1
20°-30°	647.5	13.9
30°-40°	789.9	16.9
40°-50°	836.0	17.9
50°-60°	775.4	16.6
60°-70°	609.5	13.1
70°-80°	341.6	7.3
80°-90°	91.2	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°	1219.6	26.2
0°-40°	2009.4	43.1
0°-60°	3620.8	77.6
0°-90°	4663.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4663.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1557	1554	1551	1550	1562	148
15°	1510	1504	1499	1502	1500	427
25°	1412	1405	1402	1403	1411	650
35°	1270	1266	1259	1259	1262	796
45°	1097	1090	1079	1076	1083	846
55°	884	874	860	861	867	792
65°	642	625	607	611	617	635
75°	355	347	329	288	274	377
85°	86	79	78	74	71	100
90°	0	0	0	0	0	



TEST NUMBER: P393518

CATALOG NUMBER: 24EN-LD2-45-UNV-L83050-W2A-1-U (4500K)

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1559.3	1559.3	1559.3	1559.3	1559.3
2.5°	1562.4	1557.3	1560.3	1554.2	1560.3
5°	1557.3	1554.2	1551.2	1550.1	1562.4
7.5°	1554.2	1548.1	1545.1	1542.0	1552.2
10°	1533.9	1535.9	1531.8	1532.8	1540.0
12.5°	1526.7	1520.6	1518.6	1518.6	1522.7
15°	1510.5	1504.3	1499.3	1502.3	1500.3
17.5°	1497.2	1480.9	1482.0	1482.0	1478.9
20°	1464.7	1457.5	1460.6	1455.5	1458.5
22.5°	1437.2	1433.1	1434.1	1429.0	1436.2
25°	1411.7	1404.6	1401.5	1402.6	1410.7
27.5°	1380.2	1373.0	1369.0	1368.0	1382.2
30°	1344.5	1339.5	1334.4	1334.4	1344.5
32.5°	1309.9	1302.8	1296.7	1295.7	1301.8
35°	1270.2	1266.2	1259.0	1259.0	1262.1
37.5°	1231.6	1223.4	1217.3	1218.3	1220.4
40°	1189.8	1181.7	1172.5	1172.5	1174.6
42.5°	1144.0	1136.9	1130.8	1126.7	1130.8
45°	1097.2	1090.1	1078.9	1075.8	1083.0
47.5°	1048.4	1039.2	1026.0	1028.0	1037.2
50°	993.4	984.2	969.0	974.1	985.3
52.5°	943.5	932.3	916.0	921.1	926.2
55°	884.5	874.3	860.1	861.1	867.2
57.5°	827.5	816.3	801.0	800.0	809.2
60°	771.5	756.2	736.9	737.9	743.0
62.5°	709.4	693.1	673.8	673.8	683.0
65°	642.2	624.9	606.6	610.7	616.8
67.5°	577.1	554.7	538.4	540.5	547.6
70°	501.8	486.5	473.3	466.2	462.1
72.5°	435.6	414.3	404.1	378.6	370.5
75°	355.2	347.1	328.8	288.0	273.8
77.5°	284.0	275.8	251.4	207.6	199.5
80°	210.7	212.7	177.1	170.0	170.0
82.5°	147.6	141.5	129.3	123.2	120.1
85°	86.5	79.4	78.4	74.3	71.2
87.5°	28.5	32.6	31.6	32.6	32.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)