

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: P393580

Luminaire Tested: **24EN-LD2-54-UNV-L83050-W2A-1-U (3500K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P393580
Test Lab: INNOVATION CENTER (G3)
Issue Date: 3/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24EN-LD2-54-UNV-L83050-W2A-1-U (3500K)
Description: 2X4 ENCOUNTER, 5400 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5451.1 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.28 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

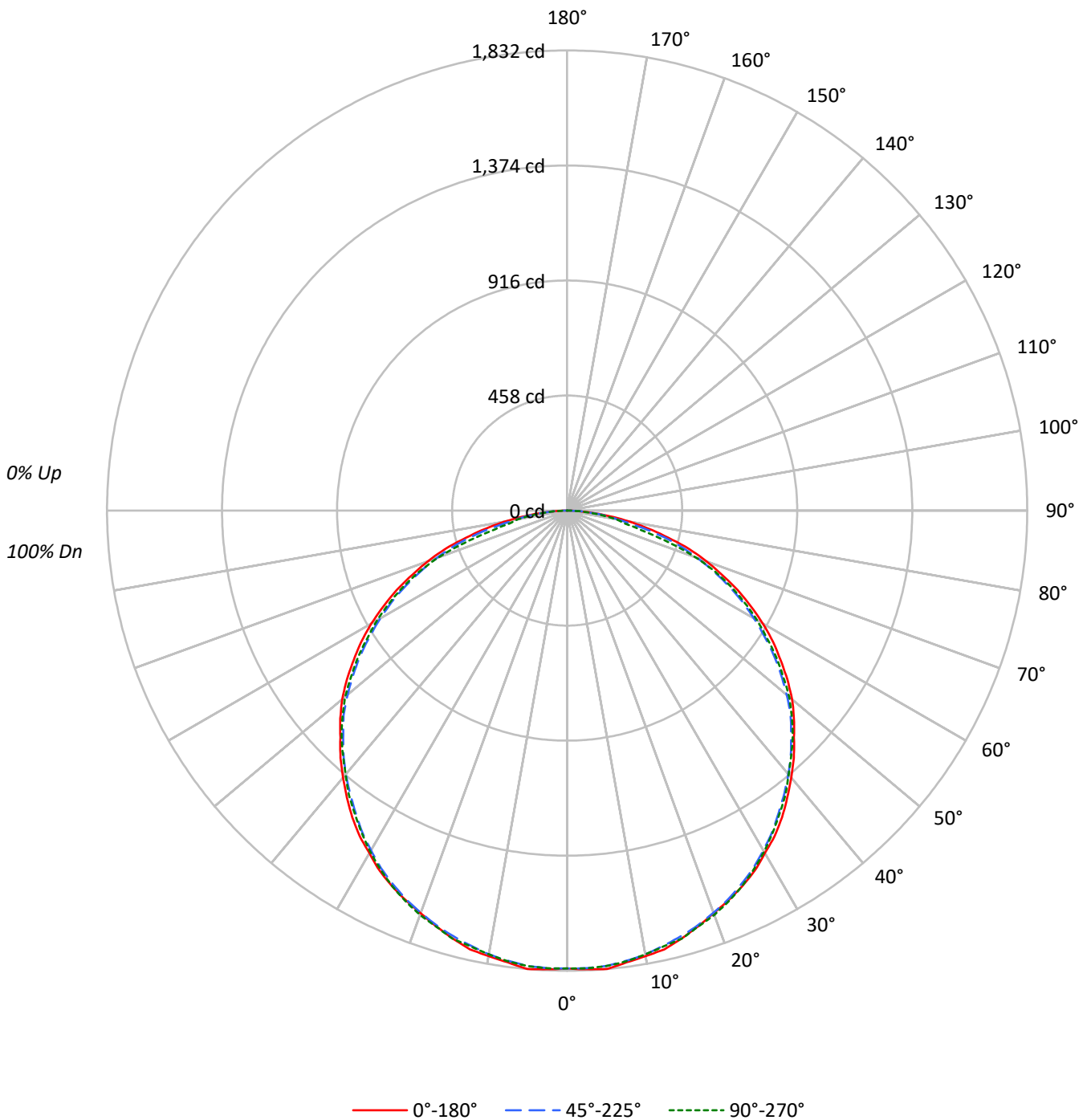
Input Watts (W): 39.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	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°	2453	2453	2453
5°	2474	2457	2458
10°	2461	2451	2451
15°	2456	2443	2457
20°	2443	2440	2453
25°	2450	2436	2448
30°	2447	2427	2436
35°	2449	2411	2421
40°	2438	2406	2410
45°	2430	2399	2417
50°	2447	2388	2416
55°	2433	2358	2383
60°	2422	2312	2349
65°	2385	2257	2299
70°	2317	2175	2148
75°	2163	2007	1627
80°	1937	1581	1526
85°	1559	1405	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.9	3.2
10°-20°	496.1	9.1
20°-30°	757.0	13.9
30°-40°	923.7	16.9
40°-50°	977.4	17.9
50°-60°	906.9	16.6
60°-70°	711.7	13.1
70°-80°	399.5	7.3
80°-90°	105.9	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°	1426.0	26.2
0°-40°	2349.7	43.1
0°-60°	4234.0	77.7
0°-90°	5451.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5451.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1823	1823	1823	1823	1823	
5°	1832	1820	1819	1815	1820	174
15°	1763	1760	1754	1753	1764	497
25°	1650	1638	1641	1636	1649	760
35°	1491	1481	1468	1472	1474	932
45°	1277	1272	1261	1256	1270	988
55°	1037	1021	1005	1008	1016	928
65°	749	729	709	709	722	739
75°	416	403	386	341	313	442
85°	101	92	91	84	83	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1823	1823	1823	1823	1823
2.5°	1828	1822	1823	1821	1824
5°	1832	1820	1819	1815	1820
7.5°	1814	1810	1808	1807	1810
10°	1801	1794	1794	1795	1794
12.5°	1789	1779	1774	1777	1777
15°	1763	1760	1754	1753	1764
17.5°	1735	1737	1731	1730	1736
20°	1706	1705	1704	1699	1713
22.5°	1679	1674	1675	1669	1683
25°	1650	1638	1641	1636	1649
27.5°	1617	1603	1605	1605	1610
30°	1575	1563	1562	1568	1568
32.5°	1537	1525	1519	1520	1522
35°	1491	1481	1468	1472	1474
37.5°	1440	1435	1420	1420	1427
40°	1388	1381	1370	1367	1372
42.5°	1336	1329	1318	1313	1321
45°	1277	1272	1261	1256	1270
47.5°	1225	1214	1207	1203	1213
50°	1169	1153	1141	1143	1154
52.5°	1105	1090	1073	1077	1083
55°	1037	1021	1005	1008	1016
57.5°	972	956	931	936	942
60°	900	878	859	862	873
62.5°	824	806	787	789	799
65°	749	729	709	709	722
67.5°	667	653	631	631	639
70°	589	571	553	541	546
72.5°	510	488	474	444	431
75°	416	403	386	341	313
77.5°	331	324	291	244	232
80°	250	245	204	197	197
82.5°	171	166	154	142	140
85°	101	92	91	84	83
87.5°	33	38	36	37	37
90°	0	0	0	0	0

(END OF REPORT)