

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1031599

Luminaire Tested: S123DIW-B340D1320UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031599
REPORT IS A COMBINATION OF REPORTS P991296 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B340D1320UB40-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

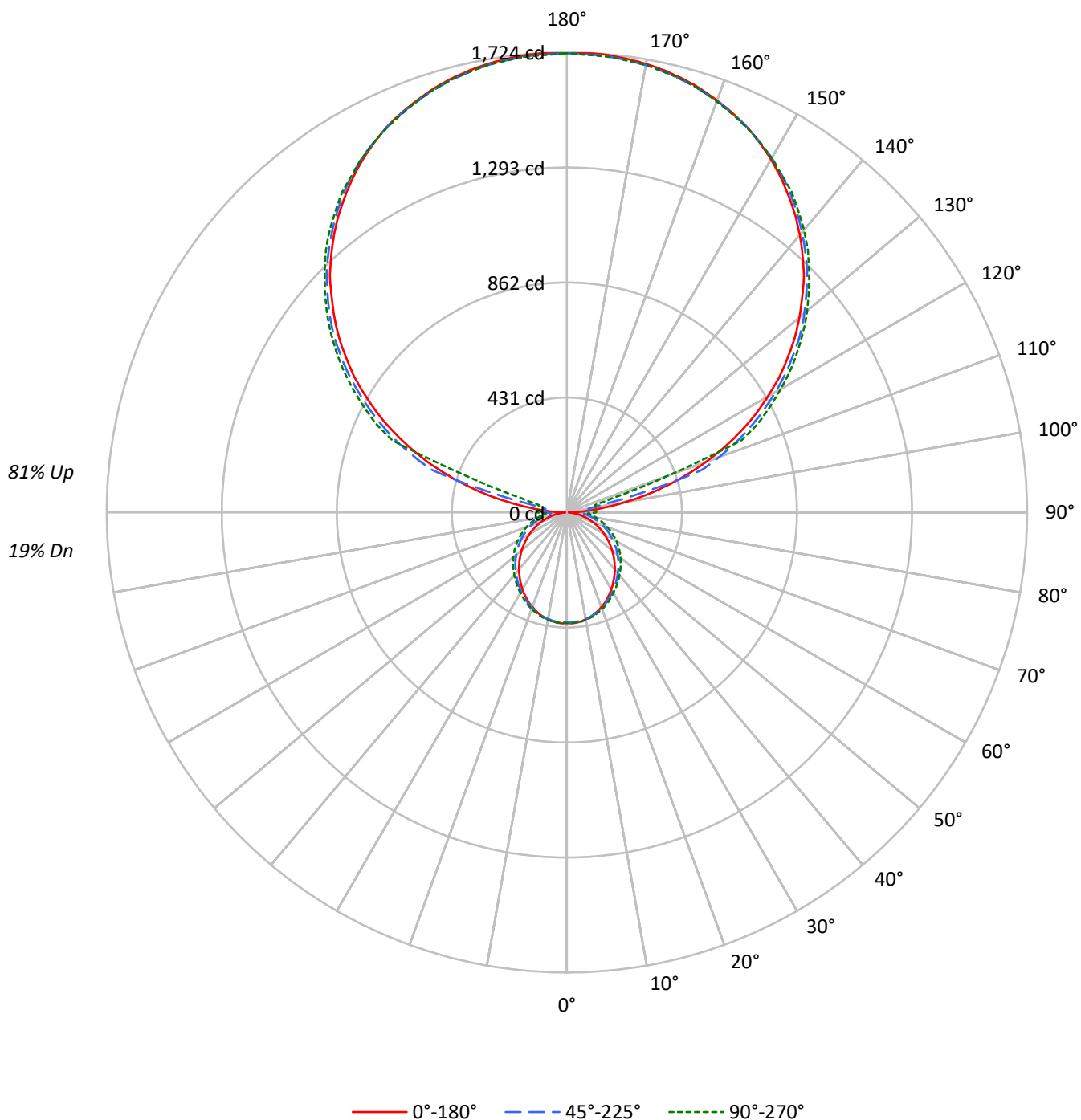
Lumens per Lamp: N/A
Luminaire Lumens: 6643.0 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 55.1
Input Voltage (V):
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: 24 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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	100	100	100	100	88	88	88	88	66	66	66	46	46	46	28	28	28	19		
1	90	86	82	79	80	76	73	70	57	55	53	40	39	37	24	23	23	15		
2	82	75	69	64	72	66	61	57	50	47	44	35	33	31	21	20	19	13		
3	75	66	59	53	66	58	52	47	44	40	36	31	28	26	18	17	16	10		
4	68	58	50	44	60	51	45	40	39	34	31	27	24	22	16	15	13	9		
5	62	51	43	38	55	45	39	34	34	30	26	24	21	19	15	13	12	8		
6	57	46	38	32	50	41	34	29	31	26	23	22	19	16	13	11	10	7		
7	53	41	33	28	46	36	30	25	28	23	20	20	17	14	12	10	9	6		
8	49	37	30	25	43	33	27	22	25	21	17	18	15	13	11	9	8	5		
9	45	34	26	22	40	30	24	20	23	18	15	16	13	11	10	8	7	5		
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	9	8	6	4		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4455	4455	4455
5°	4467	4324	4321
10°	4426	4207	4175
15°	4367	4078	4021
20°	4284	3934	3855
25°	4182	3771	3683
30°	4076	3624	3510
35°	3960	3471	3369
40°	3847	3329	3220
45°	3723	3193	3098
50°	3600	3058	2965
55°	3464	2919	2844
60°	3330	2776	2718
65°	3193	2625	2572
70°	2986	2456	2420
75°	2727	2262	2264
80°	2421	2068	2086
85°	2123	1908	1959

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3723 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	0.6
10°-20°	111.9	1.7
20°-30°	167.4	2.5
30°-40°	199.8	3.0
40°-50°	209.1	3.1
50°-60°	196.2	3.0
60°-70°	163.9	2.5
70°-80°	117.2	1.8
80°-90°	73.2	1.1
90°-100°	104.5	1.6
100°-110°	325.7	4.9
110°-120°	740.8	11.2
120°-130°	925.4	13.9
130°-140°	981.0	14.8
140°-150°	913.3	13.7
150°-160°	735.8	11.1
160°-170°	474.8	7.1
170°-180°	163.6	2.5
0°-30°	318.6	4.8
0°-40°	518.4	7.8
0°-60°	923.7	13.9
0°-90°	1278.0	19.2
90°-120°	1171.1	17.6
90°-150°	3990.8	60.1
90°-180°	5365.0	80.8
0°-180°	6643.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	414	413	411	414	414	39
15°	394	396	395	400	400	111
25°	356	361	362	368	368	164
35°	307	314	320	326	328	192
45°	251	262	273	281	285	193
55°	191	206	222	234	238	171
65°	132	150	170	183	188	131
75°	72	93	115	130	136	77
85°	22	45	68	84	88	23
90°	7	42	82	102	109	9
95°	83	48	84	107	112	97
105°	385	410	314	100	107	408
115°	717	730	758	782	790	709
125°	1009	1020	1038	1050	1056	902
135°	1256	1263	1273	1285	1283	967
145°	1448	1457	1459	1466	1467	907
155°	1595	1592	1594	1600	1592	735
165°	1682	1678	1677	1687	1678	475
175°	1722	1715	1716	1726	1715	164
180°	1722	1722	1722	1722	1722	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	413.9	413.9	413.9	413.9	413.9
2.5°	416.1	414.8	411.2	414.8	414.3
5°	414.3	413.4	410.7	414.3	413.9
7.5°	411.2	411.2	408.5	413.0	412.5
10°	406.7	407.6	405.3	409.8	408.9
12.5°	401.3	402.6	401.3	405.3	404.4
15°	394.5	395.9	395.4	399.9	399.5
17.5°	386.4	389.1	388.6	392.7	391.8
20°	377.4	380.1	381.0	385.0	385.5
22.5°	367.9	370.6	372.0	377.4	376.9
25°	356.2	360.7	362.0	367.9	367.9
27.5°	344.9	349.9	352.6	357.5	358.0
30°	332.7	338.6	342.2	347.6	347.6
32.5°	319.2	326.0	330.9	336.8	338.1
35°	306.6	313.8	319.7	326.4	328.2
37.5°	293.1	301.2	307.9	315.6	317.0
40°	279.5	287.7	296.7	304.3	306.1
42.5°	264.7	275.0	284.5	293.1	295.8
45°	250.7	261.5	272.8	281.3	284.9
47.5°	235.8	248.0	260.6	270.1	272.8
50°	221.4	234.0	248.0	258.3	261.5
52.5°	206.0	219.6	235.4	246.2	250.2
55°	191.2	206.0	222.3	234.4	238.1
57.5°	176.7	192.1	209.7	221.8	225.9
60°	161.4	177.6	196.1	208.7	213.7
62.5°	147.0	163.7	183.5	196.1	200.6
65°	132.1	149.7	169.5	183.1	187.6
67.5°	117.2	135.7	155.5	170.4	174.0
70°	101.4	120.8	142.5	156.9	161.4
72.5°	87.0	106.4	128.9	143.8	148.3
75°	71.7	92.9	115.4	130.3	135.7
77.5°	58.6	79.8	102.3	118.1	122.2
80°	44.6	66.7	90.2	105.5	110.0
82.5°	32.5	55.0	78.9	94.2	98.7
85°	22.1	44.6	68.5	83.9	88.4
87.5°	13.5	36.1	59.1	74.4	78.9
90°	7.2	42.1	81.6	102.1	109.2
92.5°	34.8	46.5	80.6	104.4	109.8
95°	83.0	48.1	84.3	107.2	111.7
97.5°	146.5	126.9	82.8	106.7	112.4
100°	220.3	260.2	81.4	104.7	110.5
102.5°	304.2	333.4	131.2	101.5	108.7
105°	384.8	409.6	313.9	100.1	106.8
107.5°	470.1	491.0	528.7	343.9	180.3
110°	555.3	573.6	605.8	575.3	395.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	637.1	652.4	683.6	706.4	707.9
115°	717.3	730.4	758.1	781.7	790.4
117.5°	796.6	809.2	830.9	851.9	856.8
120°	869.0	882.8	901.5	922.1	925.3
122.5°	943.2	953.1	972.2	988.5	992.9
125°	1009.3	1019.5	1037.7	1049.7	1055.5
127.5°	1075.8	1085.6	1103.3	1116.1	1116.6
130°	1137.2	1147.0	1161.1	1174.8	1174.9
132.5°	1195.6	1205.8	1216.4	1229.6	1228.9
135°	1255.7	1262.9	1273.0	1284.9	1283.4
137.5°	1306.8	1316.7	1322.3	1335.9	1335.7
140°	1357.6	1365.3	1370.4	1382.3	1382.0
142.5°	1404.9	1412.1	1415.9	1425.7	1424.0
145°	1448.4	1456.9	1459.4	1465.6	1467.4
147.5°	1490.1	1496.5	1499.1	1503.0	1498.4
150°	1528.5	1532.3	1534.9	1537.5	1534.5
152.5°	1563.0	1564.3	1565.6	1570.7	1564.3
155°	1595.0	1592.5	1593.7	1600.1	1592.5
157.5°	1620.6	1620.6	1619.3	1627.0	1616.8
160°	1643.6	1642.3	1641.1	1648.7	1639.8
162.5°	1665.4	1661.5	1660.2	1669.2	1661.5
165°	1682.0	1678.2	1676.9	1687.1	1678.2
167.5°	1696.1	1690.9	1690.9	1701.2	1690.9
170°	1707.6	1702.5	1702.5	1712.7	1702.5
172.5°	1715.2	1708.8	1710.1	1720.4	1708.8
175°	1721.6	1715.2	1716.5	1725.5	1715.2
177.5°	1724.2	1717.8	1719.1	1729.3	1716.5
180°	1721.6	1721.6	1721.6	1721.6	1721.6

(END OF REPORT)