

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: P1031605

Luminaire Tested: S123DIW-B340D1320UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031605
REPORT IS A COMBINATION OF REPORTS P991305 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B340D1320UB50-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

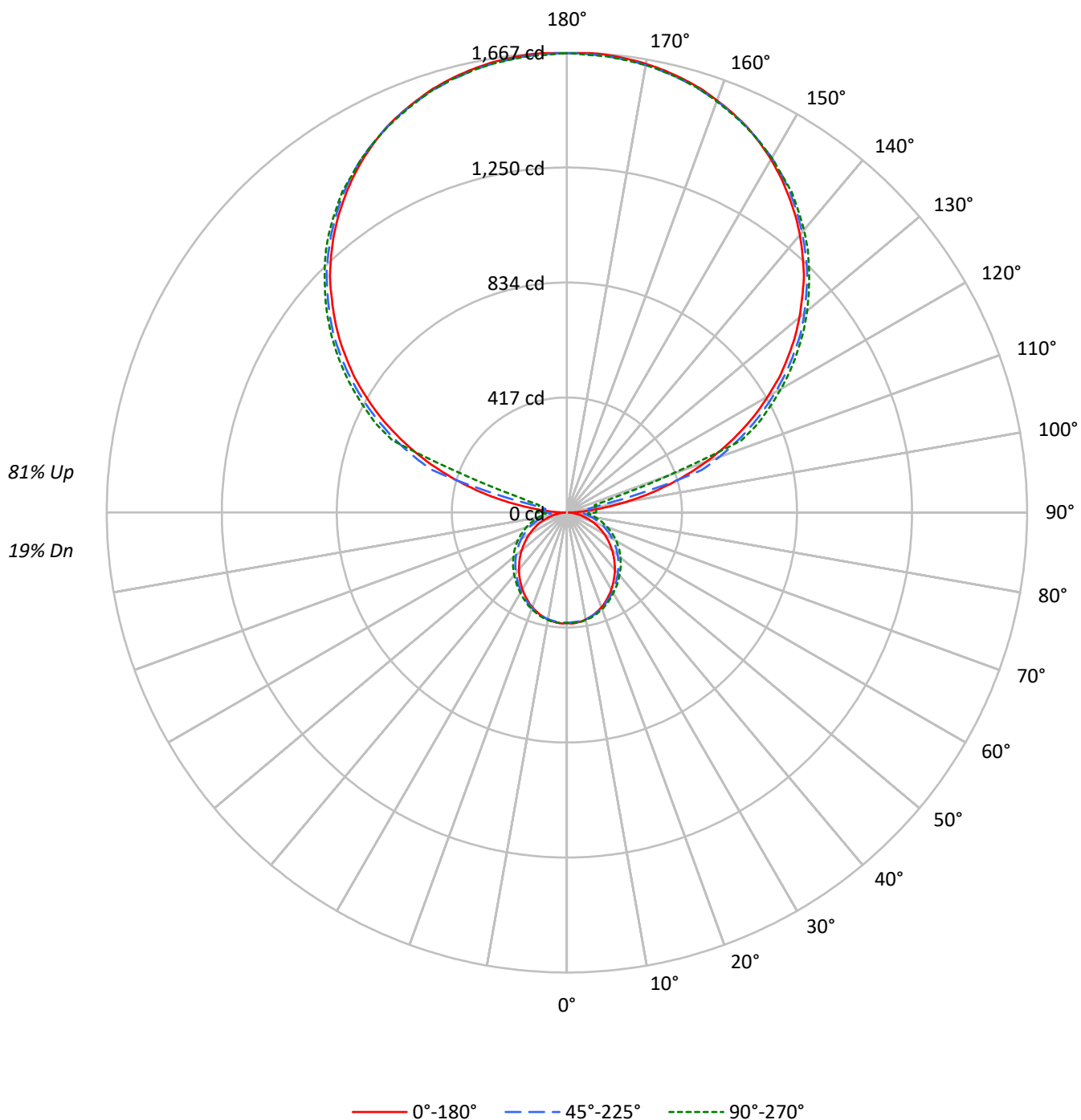
Lumens per Lamp: N/A
Luminaire Lumens: 6425.0 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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

TEST NUMBER: P1031605

CATALOG NUMBER: S123DIW-B340D1320UB50-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P1031605

CATALOG NUMBER: S123DIW-B340D1320UB50-4F0-XX-W2A-D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4311	4311	4311
5°	4322	4184	4181
10°	4282	4071	4040
15°	4225	3946	3890
20°	4146	3807	3730
25°	4047	3649	3563
30°	3945	3507	3397
35°	3832	3358	3260
40°	3723	3222	3116
45°	3603	3089	2998
50°	3483	2959	2869
55°	3352	2824	2752
60°	3223	2687	2630
65°	3089	2540	2488
70°	2892	2377	2342
75°	2640	2190	2191
80°	2345	2001	2020
85°	2056	1846	1895

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3603 cd/sqm

TEST NUMBER: P1031605

CATALOG NUMBER: S123DIW-B340D1320UB50-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.0	0.6
10°-20°	108.3	1.7
20°-30°	162.0	2.5
30°-40°	193.4	3.0
40°-50°	202.3	3.1
50°-60°	189.9	3.0
60°-70°	158.6	2.5
70°-80°	113.4	1.8
80°-90°	70.8	1.1
90°-100°	101.1	1.6
100°-110°	315.0	4.9
110°-120°	716.4	11.2
120°-130°	894.9	13.9
130°-140°	948.7	14.8
140°-150°	883.2	13.7
150°-160°	711.5	11.1
160°-170°	459.2	7.1
170°-180°	158.2	2.5
0°-30°	308.3	4.8
0°-40°	501.6	7.8
0°-60°	893.8	13.9
0°-90°	1236.6	19.2
90°-120°	1132.6	17.6
90°-150°	3859.4	60.1
90°-180°	5188.0	80.7
0°-180°	6425.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	401	400	397	401	400	38
15°	382	383	383	387	386	108
25°	345	349	350	356	356	159
35°	297	304	309	316	318	186
45°	243	253	264	272	276	187
55°	185	199	215	227	230	166
65°	128	145	164	177	182	126
75°	69	90	112	126	131	74
85°	21	43	66	81	86	22
90°	7	41	79	99	106	8
95°	80	46	82	104	108	94
105°	372	396	304	97	103	394
115°	694	706	733	756	764	685
125°	976	986	1004	1015	1021	872
135°	1214	1221	1231	1243	1241	935
145°	1401	1409	1411	1417	1419	877
155°	1542	1540	1541	1547	1540	711
165°	1627	1623	1622	1632	1623	460
175°	1665	1659	1660	1669	1659	158
180°	1665	1665	1665	1665	1665	

TEST NUMBER: P1031605

CATALOG NUMBER: S123DIW-B340D1320UB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	400.5	400.5	400.5	400.5	400.5
2.5°	402.7	401.4	397.9	401.4	400.9
5°	400.9	400.1	397.4	400.9	400.5
7.5°	397.9	397.9	395.3	399.6	399.2
10°	393.5	394.4	392.2	396.6	395.7
12.5°	388.3	389.6	388.3	392.2	391.3
15°	381.7	383.1	382.6	387.0	386.5
17.5°	373.9	376.5	376.1	380.0	379.1
20°	365.2	367.8	368.7	372.6	373.0
22.5°	356.0	358.6	359.9	365.2	364.7
25°	344.7	349.0	350.3	356.0	356.0
27.5°	333.8	338.6	341.2	346.0	346.4
30°	322.0	327.6	331.1	336.4	336.4
32.5°	308.9	315.4	320.2	325.9	327.2
35°	296.7	303.6	309.3	315.9	317.6
37.5°	283.6	291.4	298.0	305.4	306.7
40°	270.5	278.3	287.1	294.5	296.2
42.5°	256.1	266.1	275.3	283.6	286.2
45°	242.6	253.0	263.9	272.2	275.7
47.5°	228.2	240.0	252.2	261.3	263.9
50°	214.2	226.4	240.0	250.0	253.0
52.5°	199.4	212.5	227.7	238.2	242.1
55°	185.0	199.4	215.1	226.9	230.4
57.5°	171.0	185.9	202.9	214.6	218.6
60°	156.2	171.9	189.8	202.0	206.8
62.5°	142.2	158.4	177.6	189.8	194.1
65°	127.8	144.8	164.0	177.1	181.5
67.5°	113.4	131.3	150.5	164.9	168.4
70°	98.2	116.9	137.9	151.8	156.2
72.5°	84.2	103.0	124.8	139.2	143.5
75°	69.4	89.9	111.7	126.1	131.3
77.5°	56.7	77.2	99.0	114.3	118.2
80°	43.2	64.6	87.3	102.1	106.5
82.5°	31.4	53.2	76.3	91.2	95.5
85°	21.4	43.2	66.3	81.1	85.5
87.5°	13.1	34.9	57.2	72.0	76.3
90°	6.9	40.6	79.0	98.7	105.6
92.5°	33.6	45.0	78.0	101.0	106.2
95°	80.3	46.5	81.5	103.7	108.1
97.5°	141.7	122.8	80.2	103.2	108.7
100°	212.9	251.7	78.8	101.3	107.0
102.5°	294.2	322.5	126.8	98.3	105.1
105°	372.1	396.2	303.6	96.9	103.3
107.5°	454.6	474.8	511.3	332.6	174.4
110°	537.0	554.8	585.8	556.3	383.0

TEST NUMBER: P1031605

CATALOG NUMBER: S123DIW-B340D1320UB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	616.1	630.9	661.1	683.1	684.5
115°	693.7	706.3	733.1	756.0	764.4
117.5°	770.3	782.5	803.5	823.9	828.6
120°	840.3	853.7	871.8	891.8	894.8
122.5°	912.1	921.7	940.1	955.9	960.2
125°	976.0	985.9	1003.6	1015.1	1020.7
127.5°	1040.3	1049.8	1066.9	1079.3	1080.0
130°	1099.7	1109.2	1122.9	1136.1	1136.2
132.5°	1156.2	1166.1	1176.3	1189.2	1188.5
135°	1214.3	1221.3	1231.0	1242.6	1241.1
137.5°	1263.8	1273.2	1278.8	1292.0	1291.7
140°	1312.8	1320.2	1325.2	1336.8	1336.5
142.5°	1358.6	1365.6	1369.3	1378.7	1377.2
145°	1400.6	1408.9	1411.4	1417.3	1419.0
147.5°	1441.0	1447.2	1449.7	1453.5	1449.1
150°	1478.1	1481.9	1484.3	1486.8	1484.0
152.5°	1511.5	1512.8	1514.0	1519.0	1512.8
155°	1542.5	1540.0	1541.2	1547.4	1540.0
157.5°	1567.2	1567.2	1566.0	1573.4	1563.5
160°	1589.5	1588.2	1587.0	1594.4	1585.8
162.5°	1610.5	1606.8	1605.6	1614.2	1606.8
165°	1626.6	1622.9	1621.6	1631.5	1622.9
167.5°	1640.2	1635.2	1635.2	1645.1	1635.2
170°	1651.3	1646.4	1646.4	1656.3	1646.4
172.5°	1658.7	1652.6	1653.8	1663.7	1652.6
175°	1664.9	1658.7	1660.0	1668.6	1658.7
177.5°	1667.4	1661.2	1662.5	1672.3	1660.0
180°	1664.9	1664.9	1664.9	1664.9	1664.9

(END OF REPORT)