Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P1031606

Luminaire Tested: S123DIW-B340D1320UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

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Test Information

Test Method:	LM-79-2019
Report Number:	P1031606
	REPORT IS A COMBINATION OF REPORTS P991306 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-D1
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:	5750.0 lumens
Efficiency:	N/A
Efficacy:	104.4 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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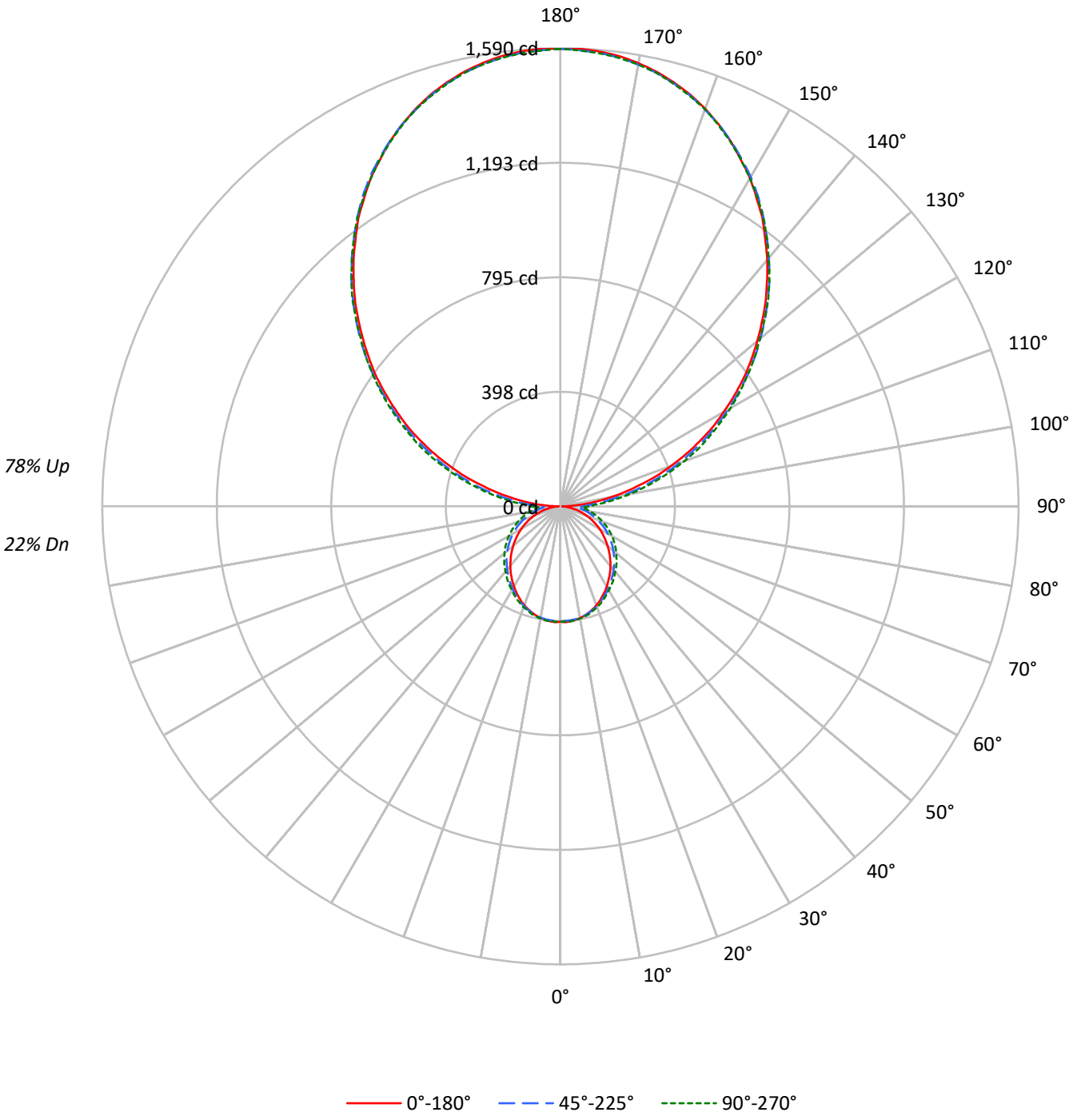
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	100	100	100	100	89	89	89	89	68	68	68	48	48	48	30	30	30	22
1	91	87	83	79	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	69	64	73	67	62	57	51	47	44	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	52	44	38	55	46	39	34	35	30	27	25	22	19	16	14	12	9
6	58	46	38	33	51	41	34	29	31	27	23	22	19	17	14	12	11	7
7	53	41	34	28	47	37	30	26	28	24	20	20	17	15	13	11	10	7
8	49	37	30	25	43	33	27	22	26	21	18	18	15	13	12	10	8	6
9	46	34	27	22	40	30	24	20	23	19	16	17	14	12	11	9	8	5
10	42	31	24	19	37	28	22	17	21	17	14	16	12	10	10	8	7	5

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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.0	0.7
10°-20°	108.3	1.9
20°-30°	162.0	2.8
30°-40°	193.4	3.4
40°-50°	202.3	3.5
50°-60°	189.9	3.3
60°-70°	158.6	2.8
70°-80°	113.4	2.0
80°-90°	70.8	1.2
90°-100°	144.6	2.5
100°-110°	340.6	5.9
110°-120°	547.6	9.5
120°-130°	704.9	12.3
130°-140°	784.3	13.6
140°-150°	767.0	13.3
150°-160°	644.8	11.2
160°-170°	429.2	7.5
170°-180°	150.3	2.6
0°-30°	308.3	5.4
0°-40°	501.6	8.7
0°-60°	893.8	15.5
0°-90°	1236.7	21.5
90°-120°	1032.8	18.0
90°-150°	3289.0	57.2
90°-180°	4513.0	78.5
0°-180°	5750.0	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	10
95°	78	104	136	154	158	85
105°	284	297	327	339	346	304
115°	532	541	555	566	569	527
125°	777	781	791	795	794	693
135°	1008	1015	1018	1021	1021	776
145°	1222	1224	1228	1230	1227	763
155°	1399	1399	1400	1405	1396	644
165°	1523	1520	1520	1527	1518	430
175°	1584	1580	1580	1587	1578	151
180°	1588	1588	1588	1588	1588	

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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	40.7	79.2	*99.0*	105.9
92.5°	42.6	68.9	98.2	*116.3*	117.7
95°	78.4	104.1	135.5	*154.0*	158.4
97.5°	125.4	147.4	175.3	*194.7*	197.7
100°	173.6	195.1	221.4	*237.7*	244.6
102.5°	229.3	245.3	273.6	*289.6*	292.7
105°	284.2	297.2	327.1	*339.3*	345.8
107.5°	348.7	359.0	381.9	*397.5*	400.1
110°	408.1	418.5	438.4	*454.8*	455.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	470.5	477.8	494.4	*511.5*	515.4
115°	532.4	541.4	554.6	*566.3*	568.6
117.5°	596.1	600.8	613.1	*623.6*	623.4
120°	654.2	663.9	672.0	*680.9*	681.4
122.5°	715.3	721.2	732.2	*738.1*	737.4
125°	777.3	781.1	791.3	*795.4*	793.5
127.5°	834.7	841.8	850.2	*851.4*	849.5
130°	892.1	901.7	906.6	*909.9*	903.8
132.5°	949.1	959.1	963.1	*964.7*	961.5
135°	1007.7	1014.7	1018.3	*1021.2*	1020.9
137.5°	1061.4	1067.1	1074.0	*1074.7*	1073.2
140°	1117.0	1123.3	1125.8	*1131.2*	1124.6
142.5°	1168.2	1174.0	1176.5	*1181.0*	1176.9
145°	1221.8	1223.9	1227.7	*1229.9*	1226.6
147.5°	1267.6	1272.6	1276.3	*1277.6*	1271.9
150°	1316.2	1318.7	1321.2	*1321.2*	1314.6
152.5°	1356.2	1359.9	1361.1	*1363.6*	1357.4
155°	1398.6	1398.6	1399.8	*1404.8*	1396.1
157.5°	1434.8	1433.5	1434.8	*1439.7*	1432.3
160°	1468.4	1465.9	1465.9	*1472.2*	1467.2
162.5°	1498.4	1494.6	1495.9	*1502.1*	1493.4
165°	1523.3	1519.6	1519.6	*1527.1*	1518.3
167.5°	1544.5	1539.6	1540.8	*1548.3*	1540.8
170°	1562.0	1557.0	1557.0	*1565.8*	1557.0
172.5°	1575.7	1570.7	1570.7	*1578.2*	1569.5
175°	1584.5	1579.5	1579.5	*1587.0*	1578.2
177.5°	*1589.5*	*1584.5*	*1584.5*	*1592.0*	*1583.2*
180°	1588.2	1588.2	1588.2	*1588.2*	1588.2

(END OF REPORT)