

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: P997563

Luminaire Tested: SA2XXDP-B1005DB50-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997563
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B1005DB50-4F0-XX-W2A-F
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

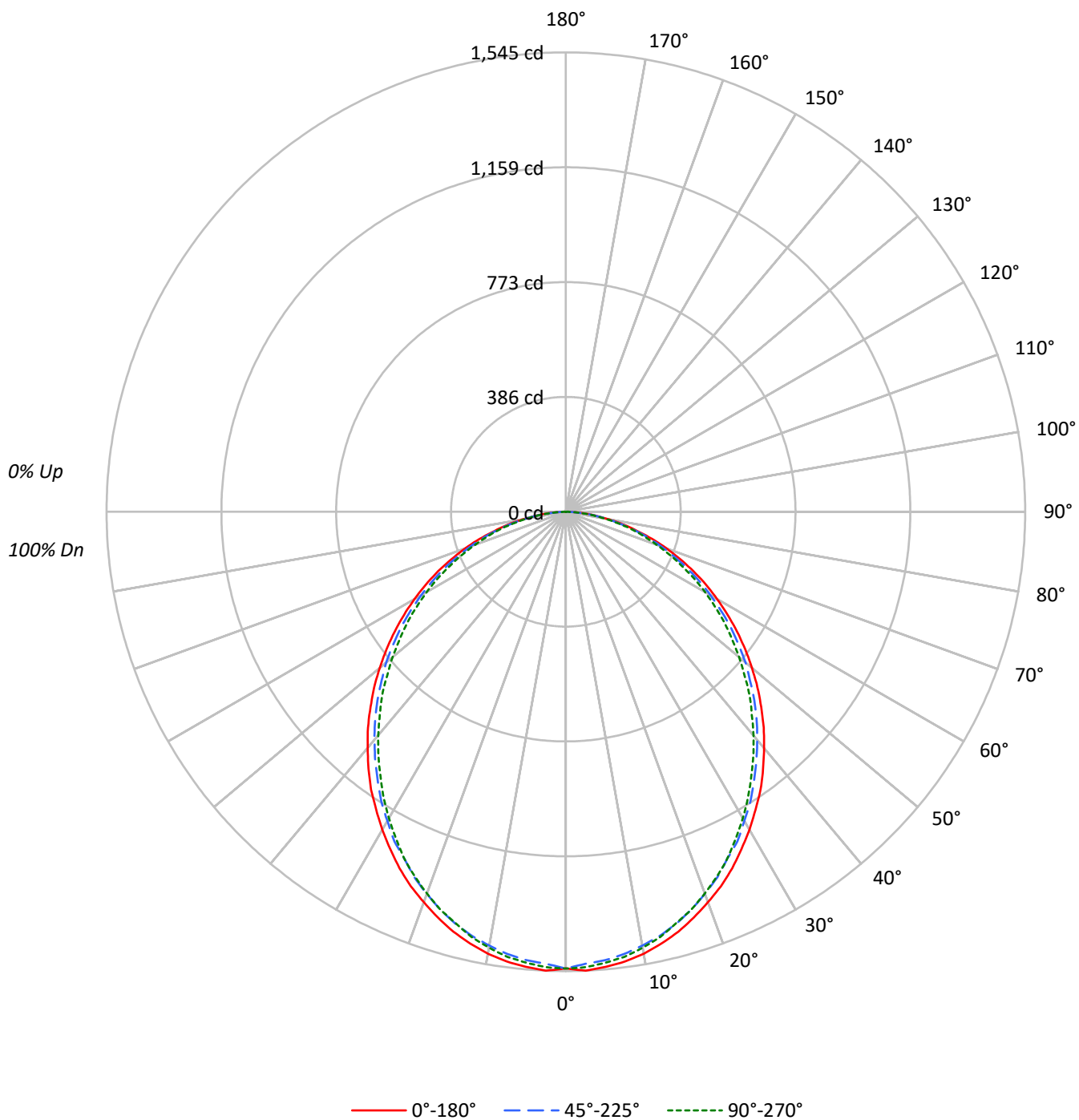
Lumens per Lamp: N/A
Luminaire Lumens: 3908.0 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
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				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24315	24315	24315
5°	24408	24055	24197
10°	24263	23811	23930
15°	23962	23503	23479
20°	23536	23039	23014
25°	23114	22470	22470
30°	22570	21948	21760
35°	22062	21320	21007
40°	21424	20693	20296
45°	20797	20069	19574
50°	20115	19423	18731
55°	19401	18670	17977
60°	18609	17770	17115
65°	17758	16874	16098
70°	16680	15791	15037
75°	15174	14544	14183
80°	13464	13063	12388
85°	11006	10461	9390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20797 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	3.7
10°-20°	406.8	10.4
20°-30°	597.8	15.3
30°-40°	694.3	17.8
40°-50°	693.4	17.7
50°-60°	604.6	15.5
60°-70°	446.9	11.4
70°-80°	252.9	6.5
80°-90°	66.7	1.7
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°	1149.1	29.4
0°-40°	1843.4	47.2
0°-60°	3141.4	80.4
0°-90°	3908.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3908.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1536	1530	1514	1526	1523	146
15°	1462	1453	1434	1440	1433	412
25°	1323	1312	1286	1289	1286	609
35°	1142	1127	1103	1094	1087	713
45°	929	919	896	880	874	717
55°	703	694	676	659	651	629
65°	474	465	450	437	430	469
75°	248	245	238	229	232	265
85°	61	59	58	53	52	71
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.1	1536.1	1536.1	1536.1	1536.1
2.5°	1544.9	1537.5	1521.3	1536.1	1533.1
5°	1536.1	1530.2	1513.9	1525.7	1522.8
7.5°	1525.7	1516.9	1500.6	1512.4	1509.5
10°	1509.5	1499.1	1481.4	1493.2	1488.8
12.5°	1487.3	1478.5	1460.7	1468.1	1465.2
15°	1462.2	1453.4	1434.2	1440.1	1432.7
17.5°	1431.2	1422.3	1403.1	1410.5	1403.1
20°	1397.2	1388.4	1367.7	1372.1	1366.2
22.5°	1363.3	1350.0	1330.8	1330.8	1327.8
25°	1323.4	1311.6	1286.5	1289.4	1286.5
27.5°	1279.1	1268.7	1249.5	1245.1	1237.7
30°	1234.8	1222.9	1200.8	1196.4	1190.5
32.5°	1187.5	1178.6	1155.0	1146.1	1140.2
35°	1141.7	1126.9	1103.3	1094.4	1087.1
37.5°	1090.0	1076.7	1053.1	1042.8	1035.4
40°	1036.8	1025.0	1001.4	988.1	982.2
42.5°	985.2	973.3	949.7	934.9	926.1
45°	929.0	918.7	896.5	880.3	874.4
47.5°	874.4	864.0	840.4	824.2	815.3
50°	816.8	809.4	788.7	768.0	760.6
52.5°	760.6	750.3	731.1	714.9	704.5
55°	703.0	694.2	676.5	658.7	651.4
57.5°	645.4	638.1	618.9	601.1	595.2
60°	587.8	581.9	561.3	545.0	540.6
62.5°	531.7	521.4	506.6	491.8	485.9
65°	474.1	465.3	450.5	437.2	429.8
67.5°	415.0	407.6	394.4	384.0	378.1
70°	360.4	354.5	341.2	330.8	324.9
72.5°	304.3	298.4	291.0	280.6	276.2
75°	248.1	245.2	237.8	228.9	231.9
77.5°	197.9	192.0	189.1	184.6	180.2
80°	147.7	146.2	143.3	138.8	135.9
82.5°	100.4	100.4	99.0	93.1	93.1
85°	60.6	59.1	57.6	53.2	51.7
87.5°	26.6	23.6	20.7	16.2	14.8
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	22.37	23.98	22.73	24.29	24.61	21.93	23.54	22.29	23.85	24.16
	3H	24.12	25.57	24.50	25.90	26.26	23.63	25.08	24.00	25.41	25.77
	4H	24.77	26.13	25.16	26.48	26.86	24.27	25.64	24.67	25.99	26.36
	6H	25.23	26.50	25.65	26.87	27.26	24.73	26.00	25.14	26.37	26.76
	8H	25.38	26.59	25.80	26.98	27.38	24.87	26.09	25.30	26.47	26.87
	12H	25.47	26.63	25.90	27.01	27.44	24.96	26.12	25.39	26.50	26.93
4H	2H	22.93	24.30	23.33	24.65	25.02	22.58	23.95	22.98	24.29	24.67
	3H	24.91	26.05	25.31	26.45	26.85	24.50	25.64	24.91	26.04	26.44
	4H	25.68	26.72	26.11	27.13	27.57	25.26	26.29	25.69	26.71	27.14
	6H	26.28	27.18	26.73	27.62	28.08	25.85	26.75	26.30	27.19	27.65
	8H	26.47	27.31	26.93	27.76	28.22	26.03	26.88	26.49	27.32	27.78
	12H	26.60	27.36	27.08	27.83	28.30	26.15	26.91	26.63	27.38	27.85
8H	4H	25.95	26.80	26.42	27.24	27.71	25.58	26.43	26.04	26.87	27.33
	6H	26.67	27.37	27.16	27.86	28.34	26.29	26.99	26.78	27.48	27.95
	8H	26.93	27.56	27.44	28.07	28.55	26.54	27.17	27.05	27.67	28.16
	12H	27.13	27.69	27.64	28.18	28.74	26.72	27.27	27.22	27.76	28.32
12H	4H	25.98	26.74	26.46	27.22	27.69	25.62	26.38	26.10	26.85	27.32
	6H	26.71	27.35	27.22	27.85	28.34	26.35	26.98	26.86	27.48	27.97
	8H	27.03	27.59	27.54	28.08	28.64	26.65	27.21	27.16	27.70	28.26