

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: P997560

Luminaire Tested: SA2XXDP-B1005DB40-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997560
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-B1005DB40-4F0-XX-W2A-F
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

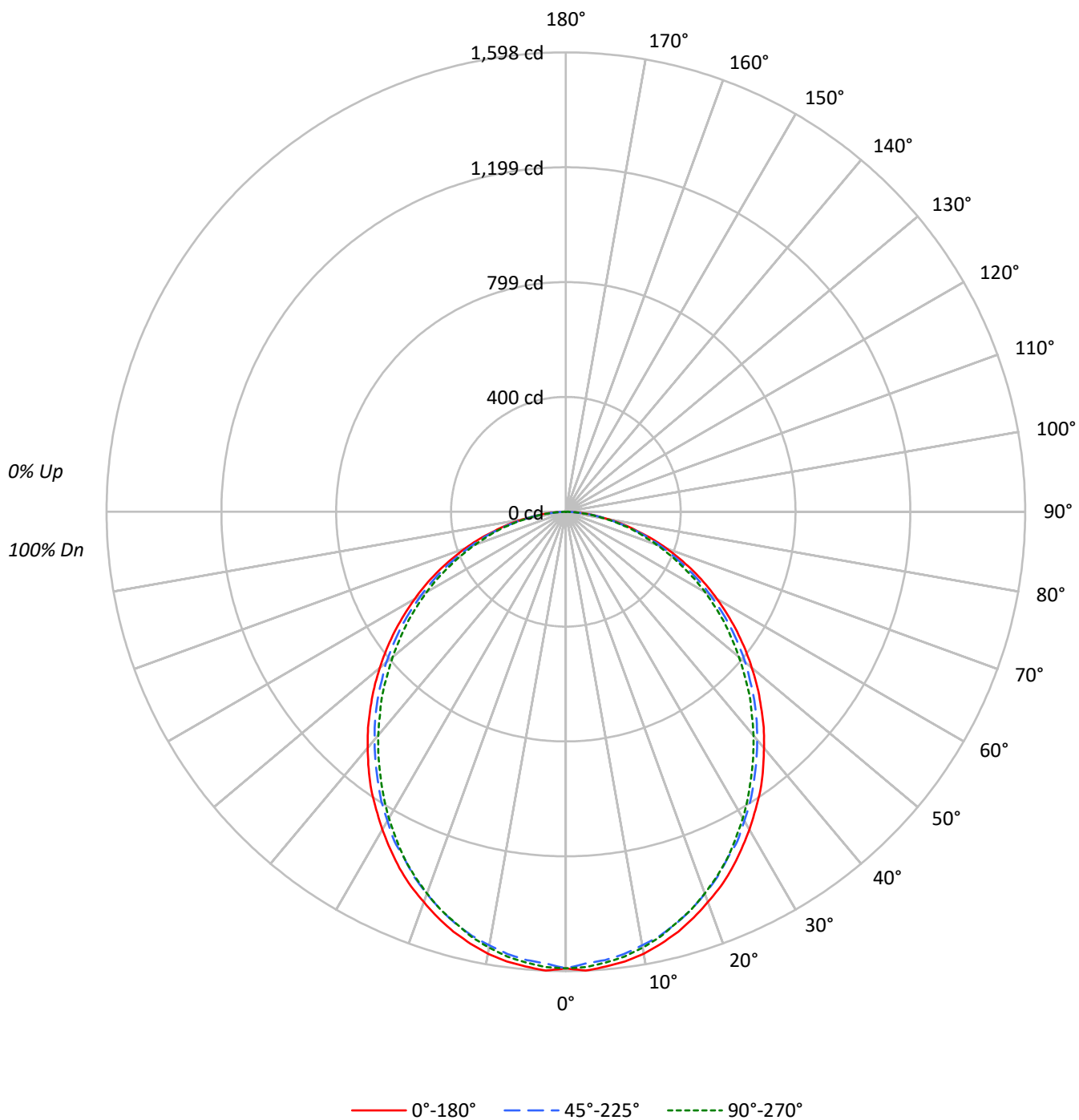
Lumens per Lamp: N/A
Luminaire Lumens: 4041.0 lumens
Efficiency: N/A
Efficacy: 65.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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°	25142	25142	25142
5°	25238	24874	25020
10°	25089	24621	24745
15°	24778	24303	24277
20°	24338	23822	23797
25°	23900	23233	23233
30°	23337	22696	22500
35°	22814	22047	21722
40°	22154	21397	20986
45°	21504	20752	20239
50°	20799	20085	19368
55°	20063	19304	18587
60°	19242	18375	17697
65°	18361	17447	16645
70°	17245	16328	15551
75°	15694	15039	14666
80°	13920	13500	12808
85°	11369	10825	9717

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21504 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	3.7
10°-20°	420.6	10.4
20°-30°	618.1	15.3
30°-40°	717.9	17.8
40°-50°	717.0	17.7
50°-60°	625.2	15.5
60°-70°	462.2	11.4
70°-80°	261.5	6.5
80°-90°	69.0	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°	1188.2	29.4
0°-40°	1906.1	47.2
0°-60°	3248.3	80.4
0°-90°	4041.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4041.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1588	1588	1588	1588	1588	
5°	1588	1582	1565	1578	1575	151
15°	1512	1503	1483	1489	1481	426
25°	1368	1356	1330	1333	1330	630
35°	1181	1165	1141	1132	1124	737
45°	961	950	927	910	904	741
55°	727	718	700	681	674	650
65°	490	481	466	452	444	485
75°	257	254	246	237	240	274
85°	63	61	60	55	54	74
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1588.3	1588.3	1588.3	1588.3	1588.3
2.5°	1597.5	1589.9	1573.1	1588.3	1585.3
5°	1588.3	1582.2	1565.4	1577.7	1574.6
7.5°	1577.7	1568.5	1551.7	1563.9	1560.9
10°	1560.9	1550.2	1531.8	1544.1	1539.5
12.5°	1537.9	1528.8	1510.5	1518.1	1515.0
15°	1512.0	1502.8	1483.0	1489.1	1481.4
17.5°	1479.9	1470.7	1450.9	1458.5	1450.9
20°	1444.8	1435.6	1414.2	1418.8	1412.7
22.5°	1409.7	1395.9	1376.1	1376.1	1373.0
25°	1368.4	1356.2	1330.2	1333.3	1330.2
27.5°	1322.6	1311.9	1292.1	1287.5	1279.8
30°	1276.8	1264.6	1241.7	1237.1	1231.0
32.5°	1227.9	1218.7	1194.3	1185.1	1179.0
35°	1180.6	1165.3	1140.9	1131.7	1124.1
37.5°	1127.1	1113.4	1088.9	1078.2	1070.6
40°	1072.1	1059.9	1035.5	1021.7	1015.6
42.5°	1018.7	1006.5	982.0	966.8	957.6
45°	960.6	950.0	927.0	910.2	904.1
47.5°	904.1	893.4	869.0	852.2	843.0
50°	844.6	836.9	815.6	794.2	786.5
52.5°	786.5	775.8	756.0	739.2	728.5
55°	727.0	717.8	699.5	681.2	673.5
57.5°	667.4	659.8	639.9	621.6	615.5
60°	607.8	601.7	580.4	563.6	559.0
62.5°	549.8	539.1	523.8	508.6	502.5
65°	490.2	481.1	465.8	452.1	444.4
67.5°	429.2	421.5	407.8	397.1	391.0
70°	372.6	366.5	352.8	342.1	336.0
72.5°	314.6	308.5	300.9	290.2	285.6
75°	256.6	253.5	245.9	236.7	239.8
77.5°	204.7	198.5	195.5	190.9	186.3
80°	152.7	151.2	148.1	143.6	140.5
82.5°	103.9	103.9	102.3	96.2	96.2
85°	62.6	61.1	59.6	55.0	53.5
87.5°	27.5	24.4	21.4	16.8	15.3
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	22.49	24.10	22.85	24.41	24.72	22.04	23.65	22.41	23.97	24.28
	3H	24.24	25.69	24.61	26.02	26.38	23.74	25.20	24.12	25.53	25.89
	4H	24.88	26.25	25.28	26.60	26.97	24.39	25.76	24.79	26.10	26.48
	6H	25.35	26.62	25.76	26.98	27.38	24.85	26.12	25.26	26.48	26.87
	8H	25.49	26.70	25.92	27.09	27.49	24.99	26.20	25.42	26.59	26.99
	12H	25.58	26.74	26.01	27.13	27.55	25.07	26.23	25.50	26.61	27.04
4H	2H	23.05	24.41	23.44	24.76	25.14	22.69	24.06	23.09	24.41	24.79
	3H	25.02	26.17	25.43	26.56	26.97	24.61	25.76	25.02	26.16	26.56
	4H	25.80	26.83	26.23	27.25	27.68	25.37	26.41	25.81	26.82	27.26
	6H	26.39	27.30	26.85	27.74	28.20	25.96	26.87	26.42	27.31	27.76
	8H	26.58	27.43	27.04	27.87	28.34	26.15	26.99	26.61	27.43	27.90
	12H	26.72	27.48	27.20	27.95	28.42	26.26	27.02	26.74	27.50	27.97
8H	4H	26.07	26.92	26.53	27.36	27.83	25.70	26.54	26.16	26.99	27.45
	6H	26.79	27.49	27.28	27.98	28.45	26.40	27.11	26.90	27.60	28.07
	8H	27.04	27.68	27.55	28.18	28.67	26.65	27.28	27.16	27.79	28.28
	12H	27.24	27.80	27.75	28.29	28.85	26.83	27.39	27.34	27.88	28.44
12H	4H	26.10	26.86	26.58	27.33	27.80	25.73	26.49	26.21	26.97	27.44
	6H	26.83	27.46	27.34	27.97	28.46	26.46	27.09	26.97	27.60	28.09
	8H	27.14	27.70	27.65	28.19	28.75	26.77	27.32	27.27	27.81	28.38