

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: P998257

Luminaire Tested: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998257
REPORT IS A COMBINATION OF REPORTS P983997 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

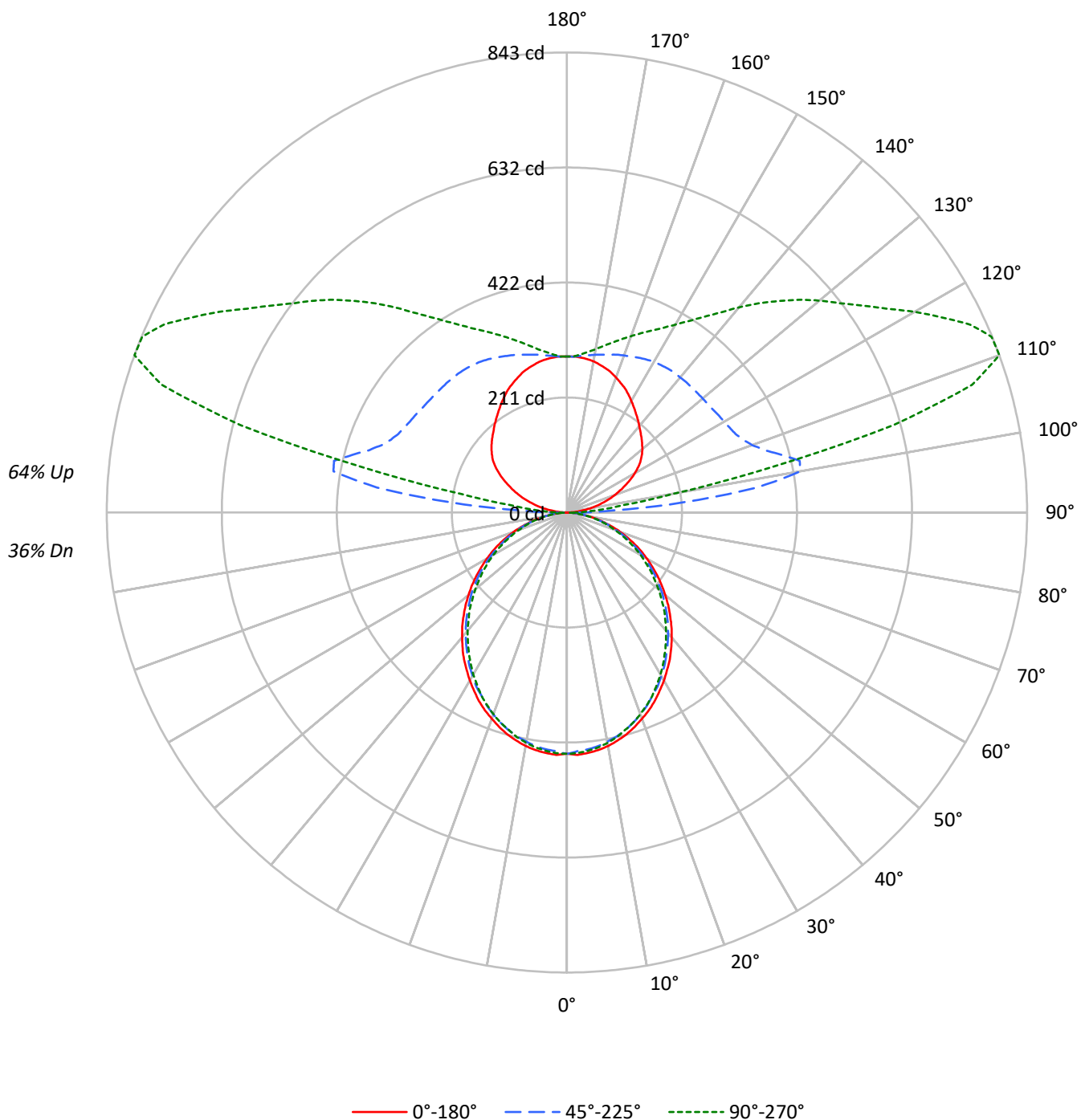
Lumens per Lamp: N/A
Luminaire Lumens: 3119.3 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 28.4
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: P998257

CATALOG NUMBER: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4

Luminous Intensity Polar Plot



TEST NUMBER: P998257

CATALOG NUMBER: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4

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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43
1	95	90	87	83	86	82	79	76	66	64	62	52	50	49	38	37	37
2	86	79	73	68	78	72	67	62	58	54	51	45	43	41	34	32	31
3	79	69	62	57	71	63	57	52	51	47	43	40	37	34	30	28	26
4	72	61	54	48	65	56	49	44	45	40	37	36	32	29	27	24	23
5	66	55	47	41	59	50	43	38	41	35	31	32	28	26	24	22	20
6	61	49	41	35	55	45	38	33	36	31	27	29	25	22	22	19	17
7	56	44	36	31	51	40	33	29	33	28	24	26	22	20	20	17	15
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	18	16	14
9	48	36	29	24	44	33	27	22	27	22	19	22	18	16	17	14	12
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7000	7000	7000
5°	7011	6672	6625
10°	6953	6368	6242
15°	6852	6062	5838
20°	6714	5728	5457
25°	6578	5380	5075
30°	6405	5054	4676
35°	6243	4708	4283
40°	6041	4368	3911
45°	5840	4030	3548
50°	5622	3686	3170
55°	5393	3318	2812
60°	5134	2922	2440
65°	4852	2517	2049
70°	4491	2074	1654
75°	3994	1600	1279
80°	3393	1086	822
85°	2458	506	350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5840 cd/sqm

TEST NUMBER: P998257

CATALOG NUMBER: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	1.3
10°-20°	117.1	3.8
20°-30°	172.1	5.5
30°-40°	199.9	6.4
40°-50°	199.6	6.4
50°-60°	174.1	5.6
60°-70°	128.7	4.1
70°-80°	72.8	2.3
80°-90°	21.0	0.7
90°-100°	115.8	3.7
100°-110°	391.6	12.6
110°-120°	411.7	13.2
120°-130°	338.5	10.9
130°-140°	272.0	8.7
140°-150°	205.5	6.6
150°-160°	144.5	4.6
160°-170°	85.1	2.7
170°-180°	27.7	0.9
0°-30°	330.8	10.6
0°-40°	530.7	17.0
0°-60°	904.3	29.0
0°-90°	1126.8	36.1
90°-120°	919.2	29.5
90°-150°	1735.2	55.6
90°-180°	1992.0	63.9
0°-180°	3119.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	442	440	436	439	438	42
15°	421	418	413	415	412	119
25°	381	378	370	371	370	175
35°	329	324	318	315	313	205
45°	267	264	258	253	252	206
55°	202	200	195	190	188	181
65°	136	134	130	126	124	135
75°	71	71	68	66	67	76
85°	17	17	17	15	15	19
90°	0	7	19	18	18	2
95°	19	47	215	81	63	20
105°	67	101	407	728	619	71
115°	118	149	341	703	815	117
125°	165	195	328	570	661	147
135°	193	231	324	479	548	149
145°	221	254	322	400	438	139
155°	251	271	313	354	368	116
165°	274	282	300	318	323	77
175°	285	286	288	292	291	27
180°	286	286	286	286	286	

TEST NUMBER: P998257

CATALOG NUMBER: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	442.2	442.2	442.2	442.2	442.2
2.5°	444.7	442.6	437.9	442.2	441.3
5°	442.2	440.5	435.8	439.2	438.4
7.5°	439.2	436.7	432.0	435.4	434.5
10°	434.5	431.6	426.5	429.9	428.6
12.5°	428.2	425.6	420.5	422.6	421.8
15°	420.9	418.4	412.9	414.6	412.4
17.5°	412.0	409.5	403.9	406.0	403.9
20°	402.2	399.7	393.7	395.0	393.3
22.5°	392.4	388.6	383.1	383.1	382.2
25°	381.0	377.6	370.3	371.2	370.3
27.5°	368.2	365.2	359.7	358.4	356.3
30°	355.5	352.1	345.7	344.4	342.7
32.5°	341.8	339.3	332.5	329.9	328.2
35°	328.7	324.4	317.6	315.1	312.9
37.5°	313.8	310.0	303.2	300.2	298.1
40°	298.5	295.1	288.3	284.4	282.7
42.5°	283.6	280.2	273.4	269.1	266.6
45°	267.4	264.5	258.1	253.4	251.7
47.5°	251.7	248.7	241.9	237.3	234.7
50°	235.1	233.0	227.0	221.1	219.0
52.5°	219.0	216.0	210.5	205.8	202.8
55°	202.4	199.8	194.7	189.6	187.5
57.5°	185.8	183.7	178.2	173.0	171.3
60°	169.2	167.5	161.6	156.9	155.6
62.5°	153.1	150.1	145.8	141.6	139.9
65°	136.5	133.9	129.7	125.9	123.7
67.5°	119.5	117.4	113.5	110.5	108.8
70°	103.7	102.0	98.2	95.2	93.5
72.5°	87.6	85.9	83.8	80.8	79.5
75°	71.4	70.6	68.5	65.9	66.8
77.5°	57.0	55.3	54.4	53.1	51.9
80°	42.5	42.1	41.2	40.0	39.1
82.5°	28.9	28.9	28.5	26.8	26.8
85°	17.4	17.0	16.6	15.3	14.9
87.5°	7.7	6.8	6.0	4.7	4.3
90°	0.5	7.4	18.7	17.8	18.1
92.5°	8.2	26.1	84.6	39.0	33.5
95°	19.2	47.3	215.4	81.4	62.7
97.5°	28.6	62.4	351.2	163.2	105.0
100°	42.3	76.4	434.2	325.0	196.7
102.5°	55.0	89.0	436.9	549.6	383.6
105°	67.0	101.1	407.2	727.9	619.4
107.5°	80.2	113.2	379.8	792.5	778.2
110°	93.4	125.6	361.1	782.0	843.0

TEST NUMBER: P998257

CATALOG NUMBER: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.5	137.4	349.0	746.6	841.9
115°	118.2	149.2	340.7	703.2	815.0
117.5°	131.3	161.0	336.3	661.7	774.3
120°	143.4	172.6	332.5	624.6	735.3
122.5°	155.0	184.4	330.3	595.8	694.7
125°	164.9	195.1	327.5	569.6	661.1
127.5°	173.1	205.2	325.9	547.4	629.8
130°	180.3	214.3	324.8	524.8	604.0
132.5°	186.9	223.1	324.2	501.4	577.1
135°	193.4	230.8	323.7	478.7	547.9
137.5°	199.5	237.4	323.7	455.6	519.9
140°	206.6	243.4	323.1	435.3	490.8
142.5°	213.8	248.4	323.1	415.8	461.6
145°	220.9	253.9	322.0	399.8	437.5
147.5°	228.6	258.3	320.4	385.8	416.0
150°	236.3	262.6	318.8	373.8	397.3
152.5°	244.0	267.1	316.0	363.5	381.4
155°	251.2	271.2	312.7	353.6	367.7
157.5°	257.2	274.5	309.4	344.3	355.6
160°	263.2	277.8	306.1	335.0	344.0
162.5°	269.3	280.3	303.4	326.2	333.0
165°	273.7	282.0	299.5	317.7	322.6
167.5°	277.5	283.6	296.2	310.0	312.7
170°	281.4	284.4	293.5	302.8	303.9
172.5°	283.6	285.2	290.2	296.5	296.8
175°	285.2	285.5	288.0	291.6	290.7
177.5°	286.3	285.8	285.8	288.0	286.3
180°	285.8	285.8	285.8	285.8	285.8

TEST NUMBER: P998257

CATALOG NUMBER: SA2XXDIP-B290D530UB50-4F0-XX-W2A-F4

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	10.56	11.31	11.62	12.38	13.83	11.34	12.08	12.40	13.15	14.61
	3H	11.88	12.56	12.96	13.63	15.11	12.95	13.62	14.03	14.70	16.18
	4H	12.28	12.92	13.37	14.00	15.48	13.54	14.18	14.63	15.26	16.74
	6H	12.50	13.08	13.60	14.17	15.66	13.94	14.52	15.04	15.61	17.10
	8H	12.52	13.08	13.63	14.18	15.67	14.04	14.60	15.14	15.70	17.19
	12H	12.51	13.04	13.62	14.14	15.65	14.08	14.61	15.19	15.71	17.22
4H	2H	11.01	11.65	12.11	12.73	14.21	11.65	12.29	12.75	13.37	14.85
	3H	12.52	13.05	13.62	14.16	15.65	13.42	13.95	14.52	15.06	16.55
	4H	13.02	13.51	14.13	14.60	16.12	14.10	14.59	15.21	15.68	17.20
	6H	13.32	13.73	14.43	14.85	16.36	14.59	15.01	15.70	16.13	17.63
	8H	13.37	13.76	14.48	14.87	16.40	14.73	15.12	15.84	16.23	17.76
	12H	13.36	13.72	14.50	14.84	16.37	14.79	15.14	15.92	16.26	17.79
8H	4H	13.19	13.58	14.30	14.69	16.21	14.18	14.57	15.29	15.68	17.20
	6H	13.56	13.89	14.70	15.04	16.56	14.74	15.06	15.88	16.22	17.74
	8H	13.67	13.95	14.81	15.08	16.62	14.93	15.21	16.07	16.35	17.89
	12H	13.69	13.94	14.84	15.07	16.65	15.02	15.27	16.17	16.40	17.98
12H	4H	13.16	13.52	14.29	14.64	16.17	14.13	14.49	15.27	15.61	17.14
	6H	13.58	13.86	14.72	15.00	16.54	14.73	15.01	15.87	16.15	17.69
	8H	13.69	13.94	14.83	15.07	16.64	14.92	15.17	16.07	16.30	17.88