

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: P998229

Luminaire Tested: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998229
REPORT IS A COMBINATION OF REPORTS P983969 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

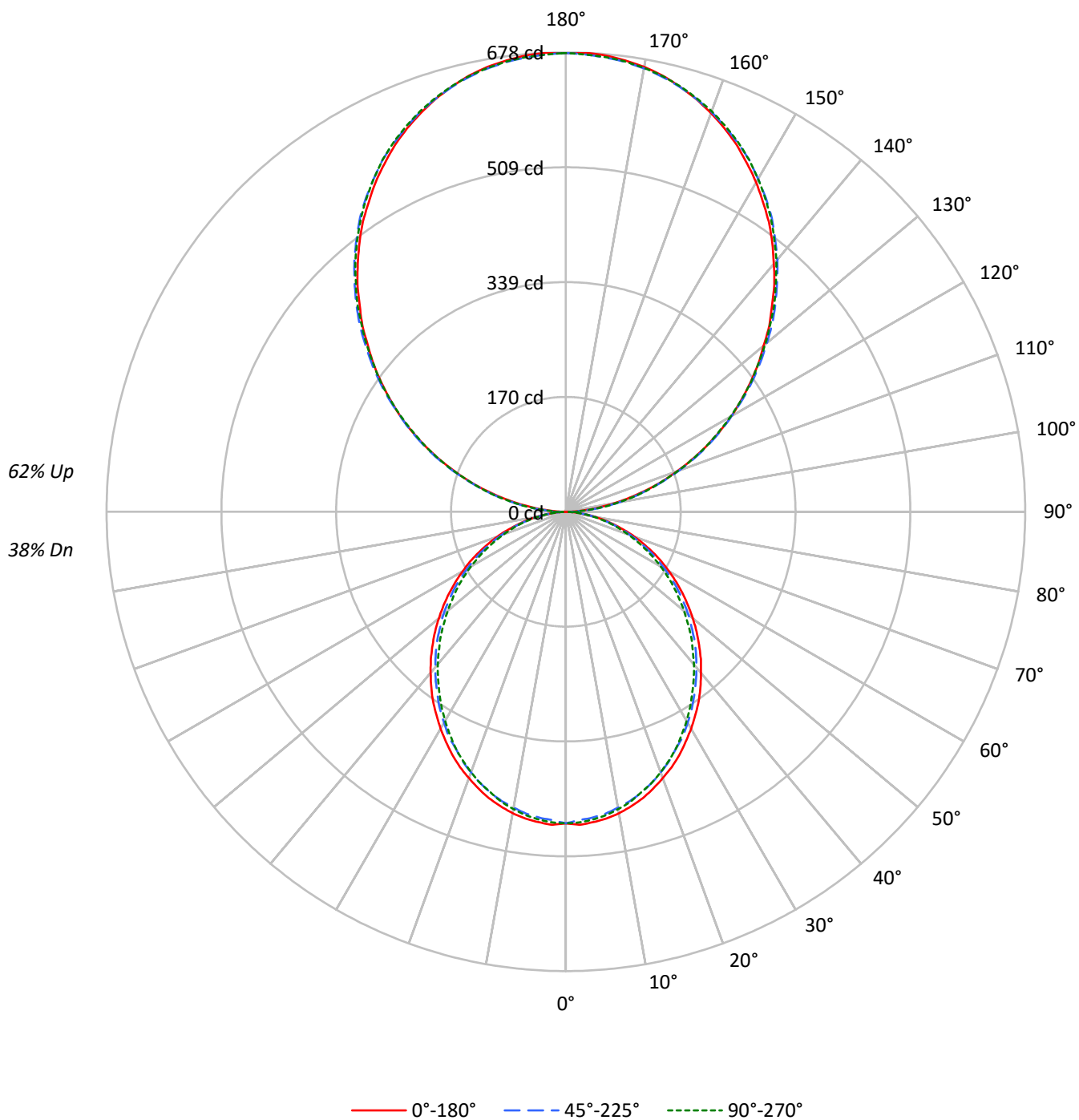
Lumens per Lamp: N/A
Luminaire Lumens: 3065.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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: P998229

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1

Luminous Intensity Polar Plot



TEST NUMBER: P998229

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1

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	95	95	95	95	77	77	77	60	60	60	45	45	45
1	95	91	87	84	86	83	79	76	67	65	63	53	52	50	40	39	38
2	87	79	73	68	78	72	67	63	59	55	52	47	44	42	35	34	32
3	79	70	63	57	71	64	57	52	52	47	44	41	38	35	31	29	27
4	72	62	54	48	65	56	50	44	46	41	37	37	33	30	28	26	24
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	23	21
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	21	18	16
8	52	40	33	27	47	37	30	25	31	25	22	25	21	18	19	16	14
9	49	37	29	24	44	34	27	23	28	23	19	23	19	16	18	15	13
10	45	33	26	22	41	31	24	20	26	21	17	21	17	15	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7280	7280	7280
5°	7292	6938	6890
10°	7232	6622	6491
15°	7127	6304	6072
20°	6983	5958	5675
25°	6840	5595	5278
30°	6661	5255	4863
35°	6491	4896	4455
40°	6282	4542	4069
45°	6074	4191	3690
50°	5847	3833	3296
55°	5609	3451	2925
60°	5341	3037	2537
65°	5044	2618	2132
70°	4673	2156	1721
75°	4156	1663	1328
80°	3529	1131	856
85°	2557	524	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6074 cd/sqm

TEST NUMBER: P998229

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	1.4
10°-20°	121.8	4.0
20°-30°	179.0	5.8
30°-40°	207.9	6.8
40°-50°	207.6	6.8
50°-60°	181.0	5.9
60°-70°	133.8	4.4
70°-80°	75.7	2.5
80°-90°	21.9	0.7
90°-100°	41.9	1.4
100°-110°	133.2	4.3
110°-120°	227.8	7.4
120°-130°	299.7	9.8
130°-140°	336.4	11.0
140°-150°	329.9	10.8
150°-160°	276.7	9.0
160°-170°	183.5	6.0
170°-180°	64.1	2.1
0°-30°	344.0	11.2
0°-40°	551.9	18.0
0°-60°	940.5	30.7
0°-90°	1171.9	38.2
90°-120°	402.9	13.1
90°-150°	1368.8	44.7
90°-180°	1893.0	61.8
0°-180°	3065.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	460	458	453	457	456	44
15°	438	435	429	431	429	123
25°	396	393	385	386	385	182
35°	342	337	330	328	326	213
45°	278	275	268	264	262	215
55°	210	208	202	197	195	188
65°	142	139	135	131	129	140
75°	74	73	71	68	69	79
85°	18	18	17	16	16	20
90°	1	7	20	19	19	3
95°	30	35	37	37	35	33
105°	123	125	126	127	127	130
115°	229	232	231	230	229	226
125°	333	338	336	334	334	297
135°	430	437	438	437	435	332
145°	522	526	530	530	528	326
155°	597	599	600	603	602	275
165°	650	649	649	653	650	183
175°	676	674	673	677	674	64
180°	677	677	677	677	677	

TEST NUMBER: P998229

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.9	459.9	459.9	459.9	459.9
2.5°	462.5	460.3	455.5	459.9	459.0
5°	459.9	458.1	453.2	456.8	455.9
7.5°	456.8	454.1	449.3	452.8	451.9
10°	451.9	448.8	443.5	447.1	445.7
12.5°	445.3	442.6	437.3	439.5	438.7
15°	437.8	435.1	429.4	431.1	428.9
17.5°	428.5	425.8	420.1	422.3	420.1
20°	418.3	415.7	409.5	410.8	409.0
22.5°	408.1	404.2	398.4	398.4	397.5
25°	396.2	392.7	385.1	386.0	385.1
27.5°	382.9	379.8	374.1	372.8	370.6
30°	369.7	366.1	359.5	358.2	356.4
32.5°	355.5	352.9	345.8	343.1	341.4
35°	341.8	337.4	330.3	327.7	325.5
37.5°	326.3	322.4	315.3	312.2	310.0
40°	310.4	306.9	299.8	295.8	294.1
42.5°	294.9	291.4	284.3	279.9	277.3
45°	278.1	275.0	268.4	263.5	261.8
47.5°	261.8	258.7	251.6	246.7	244.1
50°	244.5	242.3	236.1	229.9	227.7
52.5°	227.7	224.6	218.9	214.0	210.9
55°	210.5	207.8	202.5	197.2	195.0
57.5°	193.2	191.0	185.3	180.0	178.2
60°	176.0	174.2	168.0	163.2	161.8
62.5°	159.2	156.1	151.7	147.2	145.5
65°	141.9	139.3	134.9	130.9	128.7
67.5°	124.3	122.0	118.1	115.0	113.2
70°	107.9	106.1	102.1	99.1	97.3
72.5°	91.1	89.3	87.1	84.0	82.7
75°	74.3	73.4	71.2	68.5	69.4
77.5°	59.3	57.5	56.6	55.3	53.9
80°	44.2	43.8	42.9	41.6	40.7
82.5°	30.1	30.1	29.6	27.9	27.9
85°	18.1	17.7	17.2	15.9	15.5
87.5°	8.0	7.1	6.2	4.9	4.4
90°	0.6	7.4	20.0	18.9	19.4
92.5°	12.6	17.1	17.7	18.3	18.3
95°	29.7	35.4	36.6	36.6	35.4
97.5°	49.7	54.9	57.1	57.1	57.1
100°	72.6	77.1	78.9	78.9	78.3
102.5°	96.6	100.0	102.3	102.9	102.3
105°	122.9	124.6	125.7	126.9	126.9
107.5°	149.1	151.4	151.4	152.0	149.1
110°	174.3	177.7	177.7	177.7	176.0

TEST NUMBER: P998229

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	201.7	205.1	204.6	202.8	201.7
115°	228.6	232.0	230.8	230.3	228.6
117.5°	255.4	260.0	257.1	255.4	253.7
120°	282.3	286.8	282.3	282.3	280.6
122.5°	306.8	312.6	309.7	308.0	306.8
125°	332.6	337.7	336.0	334.3	333.7
127.5°	357.7	364.0	361.7	359.4	357.7
130°	381.1	388.6	387.4	386.3	384.0
132.5°	407.4	413.1	413.7	410.8	409.1
135°	430.3	436.6	437.7	437.1	435.4
137.5°	455.4	460.5	461.7	461.1	458.8
140°	477.7	482.8	485.7	485.7	483.4
142.5°	500.5	505.7	507.4	508.0	505.7
145°	522.3	526.3	529.7	530.3	528.0
147.5°	541.7	546.8	549.1	550.3	548.0
150°	561.7	565.1	567.4	569.1	567.4
152.5°	579.4	582.8	585.7	588.0	585.7
155°	597.1	598.8	600.5	603.4	601.7
157.5°	612.5	613.7	614.8	618.8	616.0
160°	626.3	627.4	628.0	631.4	629.1
162.5°	638.8	638.8	639.4	643.4	640.5
165°	649.7	649.1	649.1	653.1	650.3
167.5°	659.4	657.7	657.7	661.7	658.8
170°	666.8	665.1	664.5	668.5	665.1
172.5°	672.0	670.3	669.7	673.7	670.3
175°	676.0	674.3	673.1	677.1	673.7
177.5°	678.3	676.5	675.4	678.8	675.4
180°	677.1	677.1	677.1	677.1	677.1

TEST NUMBER: P998229

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-F1

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	10.93	11.70	11.99	12.75	14.18	11.72	12.48	12.77	13.54	14.97
	3H	12.26	12.95	13.33	14.01	15.46	13.34	14.02	14.40	15.09	16.53
	4H	12.66	13.31	13.74	14.38	15.84	13.92	14.57	15.00	15.64	17.09
	6H	12.88	13.48	13.96	14.55	16.01	14.32	14.92	15.40	15.99	17.46
	8H	12.91	13.48	13.99	14.56	16.02	14.43	15.00	15.51	16.08	17.54
	12H	12.89	13.44	13.99	14.52	16.00	14.47	15.01	15.56	16.09	17.58
4H	2H	11.39	12.04	12.47	13.11	14.56	12.04	12.69	13.12	13.75	15.21
	3H	12.90	13.44	13.99	14.54	16.00	13.81	14.35	14.89	15.44	16.91
	4H	13.40	13.90	14.49	14.98	16.47	14.48	14.98	15.58	16.07	17.56
	6H	13.70	14.13	14.80	15.23	16.72	14.97	15.40	16.07	16.51	17.99
	8H	13.75	14.15	14.85	15.25	16.75	15.12	15.51	16.22	16.61	18.11
	12H	13.75	14.11	14.87	15.22	16.73	15.17	15.53	16.29	16.65	18.15
8H	4H	13.57	13.97	14.67	15.07	16.57	14.56	14.96	15.66	16.06	17.56
	6H	13.95	14.28	15.07	15.42	16.92	15.13	15.46	16.25	16.60	18.09
	8H	14.05	14.34	15.18	15.46	16.98	15.31	15.60	16.44	16.73	18.24
	12H	14.08	14.33	15.21	15.45	17.00	15.41	15.66	16.54	16.78	18.33
12H	4H	13.55	13.91	14.66	15.02	16.52	14.52	14.88	15.64	15.99	17.50
	6H	13.97	14.25	15.09	15.38	16.89	15.12	15.41	16.25	16.53	18.04
	8H	14.07	14.33	15.21	15.45	17.00	15.31	15.56	16.44	16.68	18.23