

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: P998239

Luminaire Tested: SA2XXDIP-B290D530UB35-4F0-XX-W2A-F4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998239
REPORT IS A COMBINATION OF REPORTS P983979 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D530UB35-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

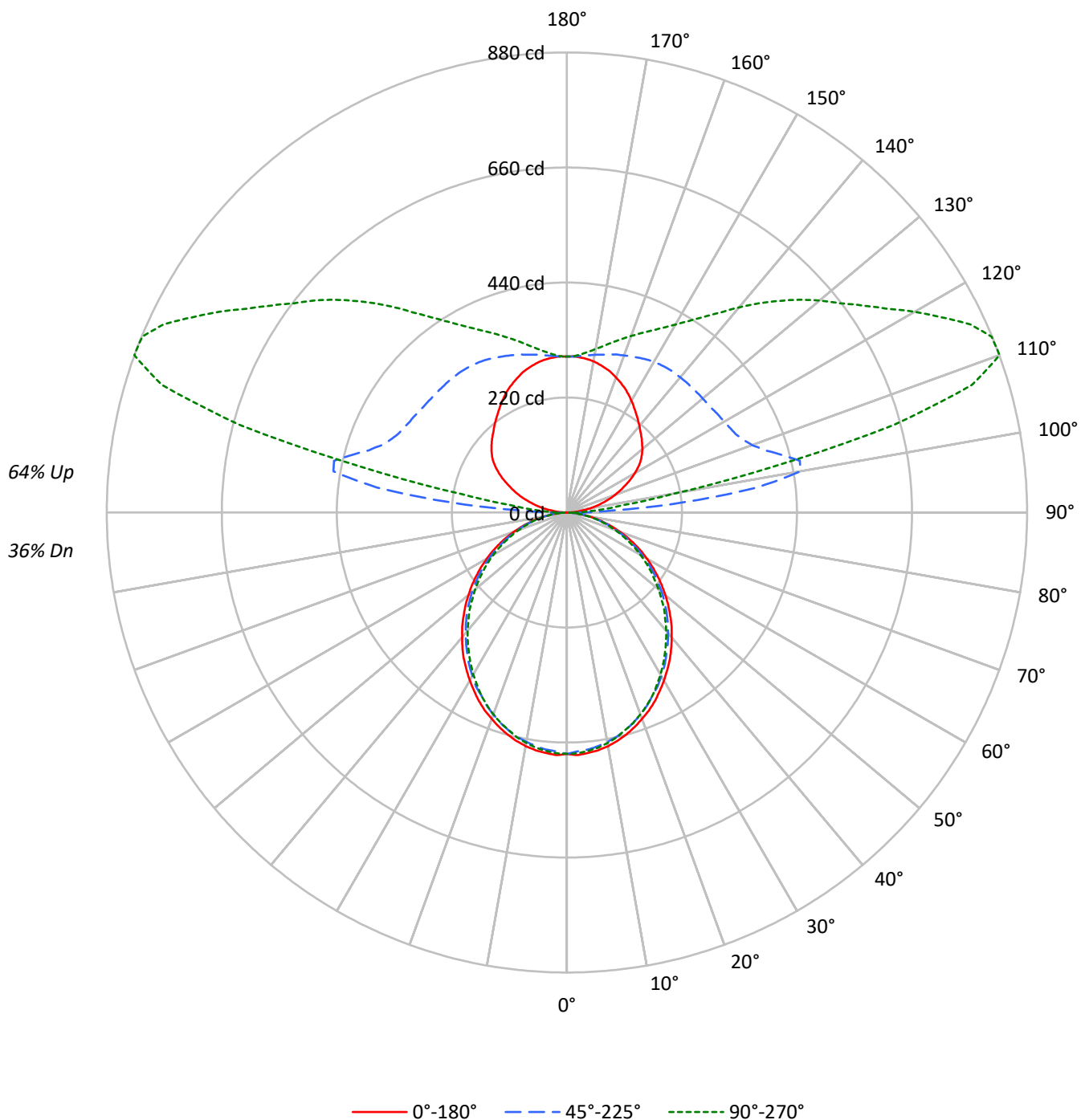
Lumens per Lamp: N/A
Luminaire Lumens: 3257.4 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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

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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	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°	7310	7310	7310
5°	7322	6969	6918
10°	7262	6651	6518
15°	7156	6331	6099
20°	7013	5983	5700
25°	6870	5619	5302
30°	6688	5277	4883
35°	6520	4917	4473
40°	6309	4562	4085
45°	6100	4210	3706
50°	5873	3850	3311
55°	5633	3467	2937
60°	5362	3050	2548
65°	5066	2628	2140
70°	4694	2167	1728
75°	4173	1670	1334
80°	3545	1136	860
85°	2571	528	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6100 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	1.3
10°-20°	122.3	3.8
20°-30°	179.7	5.5
30°-40°	208.7	6.4
40°-50°	208.5	6.4
50°-60°	181.8	5.6
60°-70°	134.4	4.1
70°-80°	76.0	2.3
80°-90°	22.0	0.7
90°-100°	121.0	3.7
100°-110°	409.0	12.6
110°-120°	429.9	13.2
120°-130°	353.5	10.9
130°-140°	284.1	8.7
140°-150°	214.6	6.6
150°-160°	150.9	4.6
160°-170°	88.8	2.7
170°-180°	28.9	0.9
0°-30°	345.5	10.6
0°-40°	554.2	17.0
0°-60°	944.5	29.0
0°-90°	1176.9	36.1
90°-120°	959.8	29.5
90°-150°	1811.9	55.6
90°-180°	2080.0	63.9
0°-180°	3257.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	462	462	462	462	462	
5°	462	460	455	459	458	44
15°	440	437	431	433	431	124
25°	398	394	387	388	387	183
35°	343	339	332	329	327	214
45°	279	276	270	265	263	216
55°	211	209	203	198	196	189
65°	142	140	135	131	129	141
75°	75	74	72	69	70	80
85°	18	18	17	16	16	20
90°	1	8	20	19	19	2
95°	20	49	225	85	65	21
105°	70	106	425	760	647	74
115°	123	156	356	734	851	122
125°	172	204	342	595	690	153
135°	202	241	338	500	572	156
145°	231	265	336	418	457	145
155°	262	283	326	369	384	121
165°	286	294	313	332	337	81
175°	298	298	301	304	304	28
180°	298	298	298	298	298	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	461.8	461.8	461.8	461.8	461.8
2.5°	464.5	462.3	457.4	461.8	461.0
5°	461.8	460.1	455.2	458.7	457.8
7.5°	458.7	456.1	451.2	454.7	453.8
10°	453.8	450.7	445.4	449.0	447.6
12.5°	447.2	444.5	439.2	441.4	440.5
15°	439.6	437.0	431.2	433.0	430.8
17.5°	430.3	427.6	421.9	424.1	421.9
20°	420.1	417.4	411.2	412.5	410.8
22.5°	409.9	405.9	400.1	400.1	399.2
25°	397.9	394.3	386.8	387.7	386.8
27.5°	384.6	381.5	375.7	374.4	372.1
30°	371.2	367.7	361.0	359.7	357.9
32.5°	357.0	354.4	347.3	344.6	342.8
35°	343.3	338.8	331.7	329.1	326.8
37.5°	327.7	323.7	316.6	313.5	311.3
40°	311.7	308.2	301.1	297.1	295.3
42.5°	296.2	292.6	285.5	281.1	278.4
45°	279.3	276.2	269.6	264.7	262.9
47.5°	262.9	259.8	252.7	247.8	245.1
50°	245.6	243.4	237.1	230.9	228.7
52.5°	228.7	225.6	219.8	214.9	211.8
55°	211.4	208.7	203.4	198.1	195.8
57.5°	194.1	191.8	186.1	180.7	179.0
60°	176.7	175.0	168.7	163.9	162.5
62.5°	159.9	156.8	152.3	147.9	146.1
65°	142.5	139.9	135.4	131.4	129.2
67.5°	124.8	122.6	118.6	115.5	113.7
70°	108.4	106.6	102.6	99.5	97.7
72.5°	91.5	89.7	87.5	84.4	83.0
75°	74.6	73.7	71.5	68.8	69.7
77.5°	59.5	57.7	56.8	55.5	54.2
80°	44.4	44.0	43.1	41.7	40.9
82.5°	30.2	30.2	29.8	28.0	28.0
85°	18.2	17.8	17.3	16.0	15.5
87.5°	8.0	7.1	6.2	4.9	4.4
90°	0.6	7.8	19.5	18.6	18.9
92.5°	8.6	27.2	88.4	40.7	35.0
95°	20.1	49.4	224.9	84.9	65.4
97.5°	29.8	65.2	366.7	170.4	109.6
100°	44.2	79.8	453.3	339.4	205.4
102.5°	57.4	93.0	456.2	573.9	400.5
105°	70.0	105.6	425.2	760.0	646.7
107.5°	83.8	118.2	396.5	827.5	812.6
110°	97.6	131.1	377.0	816.6	880.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	110.2	143.5	364.4	779.6	879.1
115°	123.4	155.8	355.8	734.2	851.0
117.5°	137.2	168.1	351.2	690.9	808.6
120°	149.8	180.2	347.2	652.2	767.8
122.5°	161.8	192.5	344.9	622.0	725.3
125°	172.2	203.8	342.0	594.8	690.3
127.5°	180.8	214.4	340.3	571.6	657.6
130°	188.2	223.8	339.1	548.0	630.7
132.5°	195.1	233.0	338.6	523.6	602.5
135°	202.0	241.0	338.0	499.8	572.1
137.5°	208.3	247.9	338.0	475.8	542.9
140°	215.8	254.2	337.4	454.5	512.4
142.5°	223.2	259.4	337.4	434.2	482.0
145°	230.7	265.1	336.3	417.5	456.8
147.5°	238.7	269.7	334.6	402.8	434.4
150°	246.8	274.3	332.8	390.2	414.9
152.5°	254.8	278.9	330.0	379.6	398.3
155°	262.2	283.2	326.5	369.2	383.9
157.5°	268.6	286.6	323.1	359.5	371.3
160°	274.9	290.0	319.6	349.8	359.2
162.5°	281.2	292.7	316.8	340.6	347.8
165°	285.8	294.4	312.7	331.6	336.9
167.5°	289.8	296.2	309.3	323.6	326.5
170°	293.8	297.0	306.4	316.2	317.3
172.5°	296.1	297.8	303.0	309.6	309.9
175°	297.8	298.1	300.7	304.4	303.6
177.5°	299.0	298.4	298.4	300.7	299.0
180°	298.4	298.4	298.4	298.4	298.4

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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	10.71	11.46	11.77	12.53	13.98	11.49	12.24	12.56	13.31	14.76
	3H	12.04	12.71	13.11	13.79	15.26	13.11	13.78	14.18	14.86	16.33
	4H	12.44	13.07	13.52	14.15	15.63	13.69	14.33	14.78	15.41	16.89
	6H	12.65	13.24	13.75	14.32	15.81	14.09	14.68	15.19	15.76	17.25
	8H	12.68	13.23	13.78	14.33	15.82	14.20	14.75	15.30	15.85	17.34
	12H	12.66	13.19	13.77	14.29	15.80	14.24	14.77	15.34	15.86	17.37
4H	2H	11.16	11.80	12.26	12.88	14.36	11.81	12.44	12.90	13.52	15.00
	3H	12.67	13.20	13.77	14.31	15.80	13.58	14.11	14.68	15.21	16.71
	4H	13.17	13.66	14.28	14.76	16.27	14.25	14.74	15.36	15.84	17.35
	6H	13.47	13.89	14.58	15.01	16.51	14.74	15.16	15.86	16.28	17.79
	8H	13.52	13.91	14.63	15.02	16.55	14.88	15.27	16.00	16.39	17.91
	12H	13.52	13.87	14.65	14.99	16.52	14.94	15.29	16.07	16.42	17.95
8H	4H	13.34	13.73	14.45	14.84	16.36	14.33	14.72	15.44	15.83	17.35
	6H	13.72	14.04	14.85	15.19	16.71	14.89	15.22	16.03	16.37	17.89
	8H	13.82	14.10	14.96	15.23	16.77	15.08	15.36	16.22	16.50	18.04
	12H	13.84	14.09	14.99	15.22	16.80	15.17	15.42	16.32	16.55	18.13
12H	4H	13.31	13.67	14.44	14.79	16.32	14.29	14.64	15.42	15.77	17.29
	6H	13.73	14.02	14.87	15.15	16.69	14.88	15.17	16.03	16.30	17.84
	8H	13.84	14.09	14.99	15.22	16.80	15.07	15.32	16.22	16.45	18.03