

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: P998493

Luminaire Tested: SA2XXDIP-B485D330UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998493
REPORT IS A COMBINATION OF REPORTS P984236 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D330UB50-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

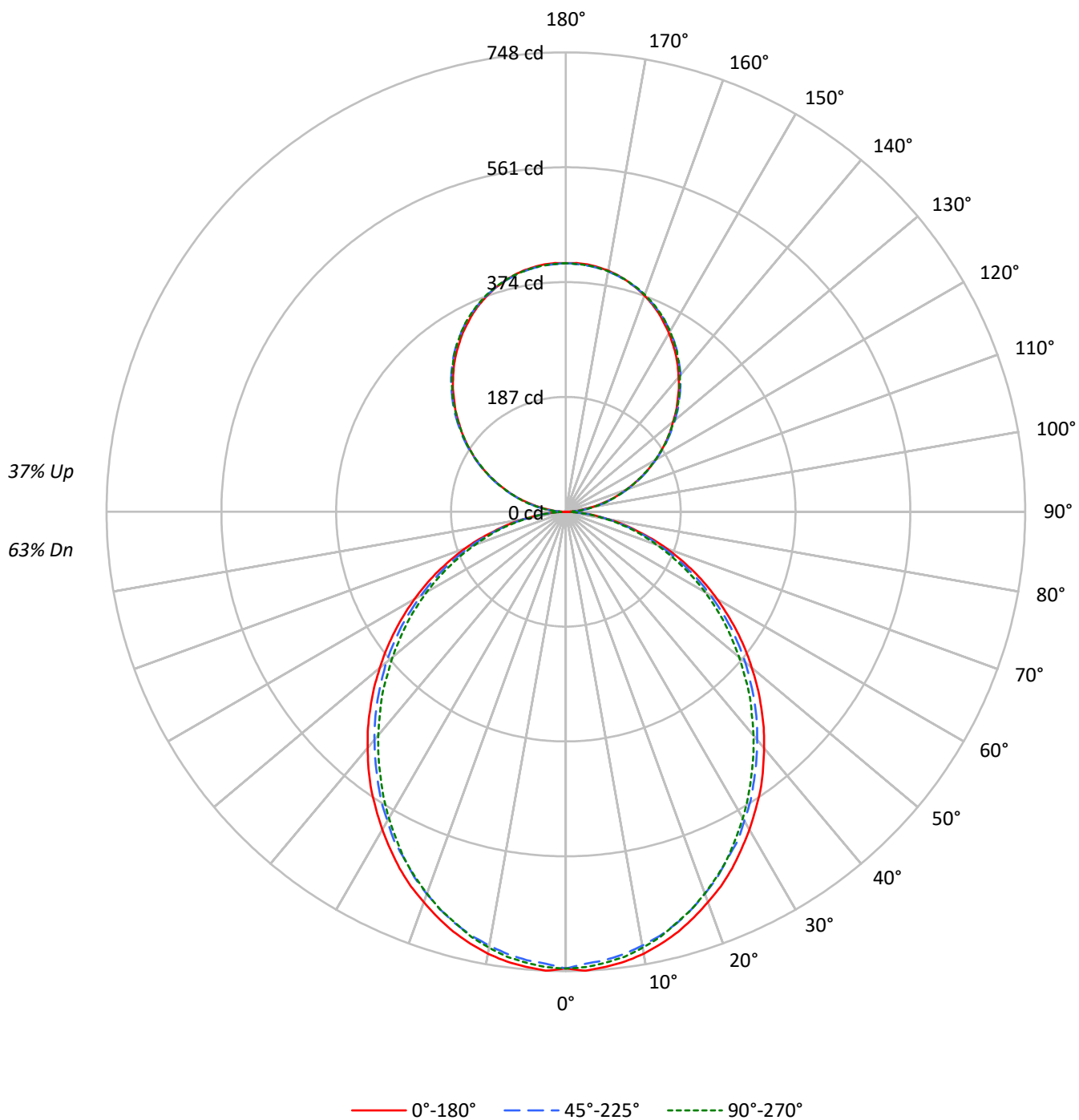
Lumens per Lamp: N/A
Luminaire Lumens: 3025.0 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 33.3
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

TEST NUMBER: P998493

CATALOG NUMBER: SA2XXDIP-B485D330UB50-4F0-XX-W2A-F1

Luminous Intensity Polar Plot



TEST NUMBER: P998493

CATALOG NUMBER: SA2XXDIP-B485D330UB50-4F0-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	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68
1	101	96	92	89	94	90	87	84	79	77	74	69	67	65	60	58	57
2	92	84	78	72	86	79	73	69	70	65	62	61	58	55	53	50	48
3	84	74	66	60	78	70	63	57	61	56	52	54	50	46	47	44	41
4	77	65	57	51	71	62	54	49	55	49	44	48	43	40	42	38	35
5	70	58	50	44	66	55	48	42	49	43	38	43	38	35	38	34	31
6	65	53	44	38	61	50	42	37	44	38	33	39	34	30	34	30	27
7	60	47	39	34	56	45	38	32	40	34	30	36	31	27	31	27	24
8	56	43	35	30	52	41	34	29	37	31	26	33	28	24	29	25	22
9	52	40	32	27	49	37	30	26	34	28	24	30	25	22	27	23	20
10	49	36	29	24	46	35	28	23	31	25	21	28	23	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11772	11772	11772
5°	11791	11220	11141
10°	11695	10709	10497
15°	11524	10194	9819
20°	11291	9633	9177
25°	11061	9048	8536
30°	10771	8498	7863
35°	10497	7919	7203
40°	10160	7345	6579
45°	9824	6777	5966
50°	9455	6199	5332
55°	9070	5582	4729
60°	8636	4912	4104
65°	8159	4233	3447
70°	7557	3489	2783
75°	6718	2689	2149
80°	5708	1829	1383
85°	4139	851	588

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9824 cd/sqm

TEST NUMBER: P998493

CATALOG NUMBER: SA2XXDIP-B485D330UB50-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	2.3
10°-20°	196.9	6.5
20°-30°	289.4	9.6
30°-40°	336.1	11.1
40°-50°	335.7	11.1
50°-60°	292.7	9.7
60°-70°	216.4	7.2
70°-80°	122.4	4.0
80°-90°	33.5	1.1
90°-100°	25.0	0.8
100°-110°	79.6	2.6
110°-120°	136.2	4.5
120°-130°	179.2	5.9
130°-140°	201.1	6.6
140°-150°	197.2	6.5
150°-160°	165.4	5.5
160°-170°	109.7	3.6
170°-180°	38.3	1.3
0°-30°	556.3	18.4
0°-40°	892.4	29.5
0°-60°	1520.9	50.3
0°-90°	1893.1	62.6
90°-120°	240.9	8.0
90°-150°	818.4	27.1
90°-180°	1132.0	37.4
0°-180°	3025.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	744	741	733	739	737	71
15°	708	704	694	697	694	199
25°	641	635	623	624	623	295
35°	553	546	534	530	526	345
45°	450	445	434	426	423	347
55°	340	336	328	319	315	304
65°	230	225	218	212	208	227
75°	120	119	115	111	112	128
85°	29	29	28	26	25	33
90°	0	4	12	11	12	3
95°	18	21	22	22	21	20
105°	74	74	75	76	76	78
115°	137	139	138	138	137	135
125°	199	202	201	200	200	178
135°	257	261	262	261	260	199
145°	312	315	317	317	316	195
155°	357	358	359	361	360	164
165°	388	388	388	390	389	110
175°	404	403	402	405	403	38
180°	405	405	405	405	405	

TEST NUMBER: P998493

CATALOG NUMBER: SA2XXDIP-B485D330UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.7	743.7	743.7	743.7	743.7
2.5°	748.0	744.4	736.5	743.7	742.2
5°	743.7	740.8	732.9	738.7	737.2
7.5°	738.7	734.4	726.5	732.2	730.8
10°	730.8	725.8	717.2	722.9	720.8
12.5°	720.1	715.8	707.2	710.8	709.3
15°	707.9	703.6	694.3	697.2	693.6
17.5°	692.9	688.6	679.3	682.9	679.3
20°	676.4	672.2	662.1	664.3	661.4
22.5°	660.0	653.6	644.3	644.3	642.8
25°	640.7	635.0	622.8	624.2	622.8
27.5°	619.2	614.2	604.9	602.8	599.2
30°	597.8	592.1	581.3	579.2	576.3
32.5°	574.9	570.6	559.2	554.9	552.0
35°	552.7	545.6	534.2	529.9	526.3
37.5°	527.7	521.3	509.8	504.8	501.3
40°	502.0	496.3	484.8	478.4	475.5
42.5°	476.9	471.2	459.8	452.6	448.3
45°	449.8	444.8	434.0	426.2	423.3
47.5°	423.3	418.3	406.9	399.0	394.7
50°	395.4	391.9	381.8	371.8	368.3
52.5°	368.3	363.3	354.0	346.1	341.1
55°	340.4	336.1	327.5	318.9	315.3
57.5°	312.5	308.9	299.6	291.0	288.2
60°	284.6	281.7	271.7	263.9	261.7
62.5°	257.4	252.4	245.3	238.1	235.3
65°	229.5	225.2	218.1	211.7	208.1
67.5°	200.9	197.4	190.9	185.9	183.1
70°	174.5	171.6	165.2	160.2	157.3
72.5°	147.3	144.4	140.9	135.9	133.7
75°	120.1	118.7	115.1	110.8	112.3
77.5°	95.8	93.0	91.5	89.4	87.2
80°	71.5	70.8	69.4	67.2	65.8
82.5°	48.6	48.6	47.9	45.0	45.0
85°	29.3	28.6	27.9	25.7	25.0
87.5°	12.9	11.4	10.0	7.9	7.2
90°	0.3	4.4	12.0	11.3	11.6
92.5°	7.5	10.2	10.6	10.9	10.9
95°	17.8	21.2	21.9	21.9	21.2
97.5°	29.7	32.8	34.2	34.2	34.2
100°	43.4	46.1	47.1	47.1	46.8
102.5°	57.7	59.8	61.2	61.5	61.2
105°	73.5	74.5	75.2	75.8	75.8
107.5°	89.2	90.5	90.5	90.9	89.2
110°	104.2	106.2	106.2	106.2	105.2

TEST NUMBER: P998493

CATALOG NUMBER: SA2XXDIP-B485D330UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	120.6	122.6	122.3	121.3	120.6
115°	136.7	138.7	138.0	137.7	136.7
117.5°	152.7	155.4	153.7	152.7	151.7
120°	168.8	171.5	168.8	168.8	167.7
122.5°	183.5	186.9	185.2	184.1	183.5
125°	198.8	201.9	200.9	199.9	199.5
127.5°	213.9	217.6	216.3	214.9	213.9
130°	227.9	232.3	231.6	230.9	229.6
132.5°	243.6	247.0	247.3	245.6	244.6
135°	257.3	261.0	261.7	261.4	260.3
137.5°	272.3	275.4	276.0	275.7	274.3
140°	285.6	288.7	290.4	290.4	289.0
142.5°	299.3	302.3	303.4	303.7	302.3
145°	312.3	314.6	316.7	317.0	315.7
147.5°	323.9	326.9	328.3	329.0	327.6
150°	335.8	337.9	339.2	340.3	339.2
152.5°	346.4	348.5	350.2	351.5	350.2
155°	357.0	358.0	359.1	360.8	359.7
157.5°	366.2	366.9	367.6	370.0	368.3
160°	374.4	375.1	375.5	377.5	376.1
162.5°	381.9	381.9	382.3	384.7	383.0
165°	388.4	388.1	388.1	390.5	388.8
167.5°	394.2	393.2	393.2	395.6	393.9
170°	398.7	397.7	397.3	399.7	397.7
172.5°	401.8	400.7	400.4	402.8	400.7
175°	404.2	403.1	402.4	404.8	402.8
177.5°	405.5	404.5	403.8	405.9	403.8
180°	404.8	404.8	404.8	404.8	404.8

TEST NUMBER: P998493

CATALOG NUMBER: SA2XXDIP-B485D330UB50-4F0-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	14.89	15.88	15.73	16.74	17.82	15.67	16.66	16.51	17.52	18.60
	3H	16.24	17.12	17.09	17.99	19.10	17.31	18.19	18.16	19.06	20.17
	4H	16.65	17.48	17.52	18.36	19.48	17.90	18.74	18.77	19.62	20.74
	6H	16.87	17.64	17.75	18.53	19.66	18.31	19.09	19.19	19.97	21.10
	8H	16.90	17.64	17.80	18.55	19.67	18.42	19.16	19.32	20.07	21.19
	12H	16.90	17.60	17.80	18.50	19.66	18.47	19.17	19.37	20.07	21.23
4H	2H	15.37	16.21	16.25	17.09	18.21	16.02	16.85	16.89	17.73	18.85
	3H	16.90	17.60	17.79	18.51	19.64	17.81	18.51	18.69	19.42	20.55
	4H	17.41	18.05	18.31	18.96	20.12	18.49	19.13	19.39	20.04	21.20
	6H	17.72	18.27	18.63	19.20	20.36	19.00	19.55	19.91	20.48	21.64
	8H	17.78	18.30	18.70	19.22	20.40	19.14	19.66	20.06	20.58	21.76
	12H	17.79	18.25	18.72	19.20	20.38	19.21	19.67	20.14	20.62	21.80
8H	4H	17.60	18.11	18.51	19.04	20.21	18.59	19.10	19.50	20.03	21.20
	6H	17.99	18.41	18.93	19.38	20.55	19.16	19.59	20.11	20.56	21.73
	8H	18.09	18.47	19.04	19.43	20.62	19.35	19.73	20.30	20.69	21.88
	12H	18.13	18.46	19.08	19.41	20.65	19.46	19.79	20.41	20.74	21.98
12H	4H	17.59	18.05	18.52	18.99	20.17	18.56	19.02	19.49	19.97	21.15
	6H	18.01	18.38	18.96	19.34	20.53	19.16	19.53	20.11	20.49	21.68
	8H	18.12	18.46	19.08	19.41	20.65	19.36	19.69	20.31	20.64	21.88