

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: P999033

Luminaire Tested: SA2XXDIP-B865D330UB27-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P999033
REPORT IS A COMBINATION OF REPORTS P984782 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D330UB27-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

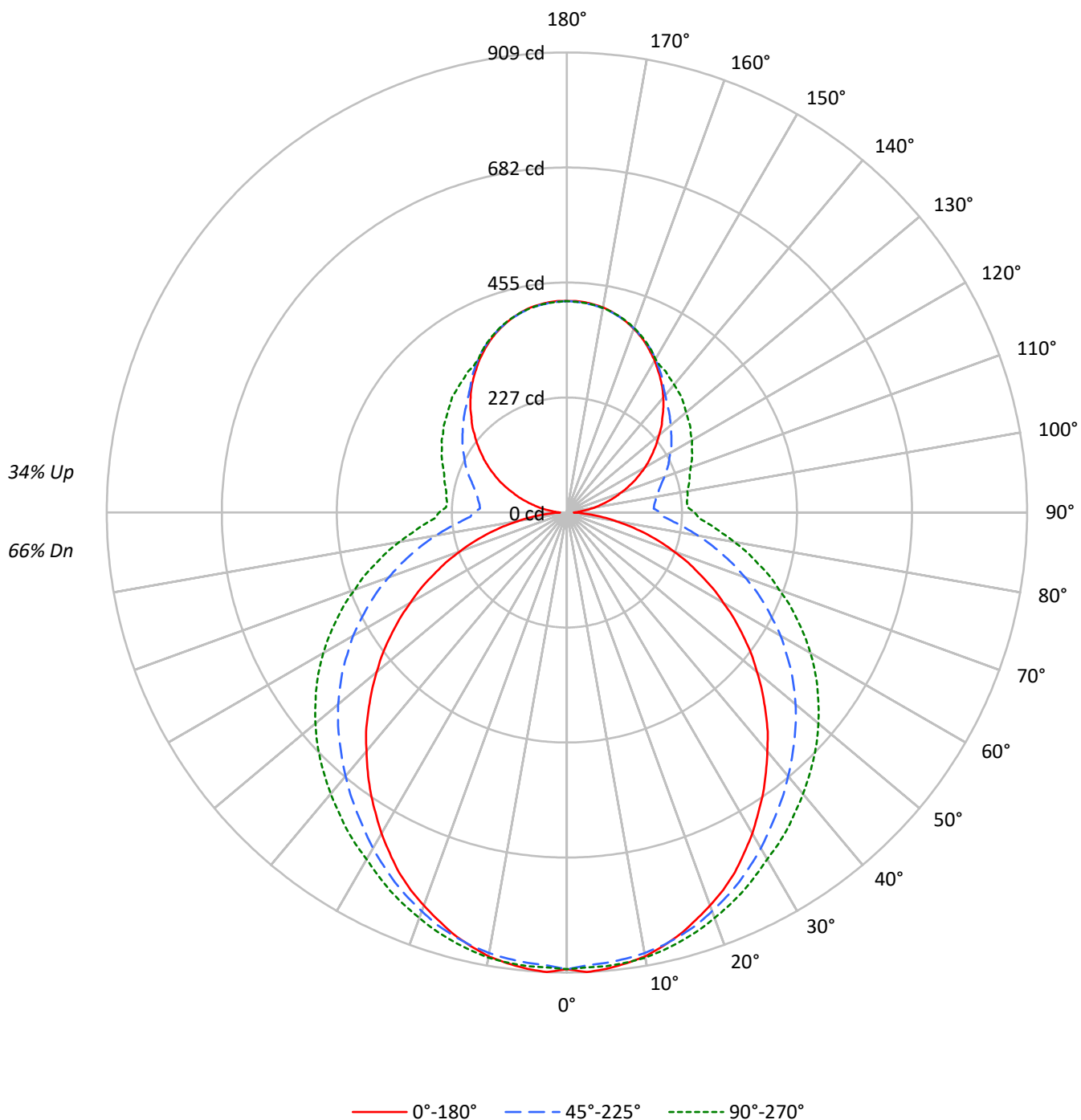
Lumens per Lamp: N/A
Luminaire Lumens: 4612.0 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 56.1
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: P999033

CATALOG NUMBER: SA2XXDIP-B865D330UB27-4F0-XX-W2A-D1

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	50	30	10
RCR																				
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71			66
1	99	94	89	85	93	89	84	81	78	75	72	69	66	64	60	58	56			52
2	90	81	74	68	84	76	70	65	67	62	58	59	55	52	51	48	46			42
3	81	71	62	56	76	67	59	53	59	53	48	52	47	43	45	41	38			34
4	74	62	53	47	69	59	51	45	52	45	40	46	40	36	40	36	32			29
5	68	55	46	40	64	52	44	38	46	40	35	41	35	31	36	31	28			25
6	63	49	41	34	59	47	39	33	42	35	30	37	31	27	32	28	24			22
7	58	45	36	30	54	42	34	29	38	31	26	33	28	24	29	25	21			19
8	54	40	32	26	50	38	31	25	34	28	23	31	25	21	27	22	19			17
9	50	37	29	24	47	35	28	23	31	25	21	28	23	19	25	20	17			15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16			14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14283	14283	14283
5°	14349	13674	13596
10°	14252	13200	13008
15°	14050	12710	12404
20°	13797	12196	11829
25°	13546	11704	11310
30°	13195	11202	10795
35°	12840	10720	10417
40°	12465	10303	10041
45°	12110	9925	9714
50°	11727	9576	9390
55°	11325	9205	9062
60°	10833	8819	8716
65°	10320	8376	8318
70°	9740	7899	7888
75°	9001	7423	7484
80°	7832	6928	7066
85°	6653	6461	6704

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12110 cd/sqm

TEST NUMBER: P999033

CATALOG NUMBER: SA2XXDIP-B865D330UB27-4F0-XX-W2A-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	1.9
10°-20°	245.3	5.3
20°-30°	371.7	8.1
30°-40°	452.7	9.8
40°-50°	487.0	10.6
50°-60°	473.0	10.3
60°-70°	413.1	9.0
70°-80°	317.9	6.9
80°-90°	214.1	4.6
90°-100°	172.7	3.7
100°-110°	189.4	4.1
110°-120°	211.4	4.6
120°-130°	224.3	4.9
130°-140°	224.1	4.9
140°-150°	206.3	4.5
150°-160°	170.7	3.7
160°-170°	113.2	2.5
170°-180°	39.6	0.9
0°-30°	702.6	15.2
0°-40°	1155.3	25.0
0°-60°	2115.3	45.9
0°-90°	3060.3	66.4
90°-120°	573.5	12.4
90°-150°	1228.2	26.6
90°-180°	1552.0	33.7
0°-180°	4612.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	905	901	893	901	900	86
15°	863	866	866	878	876	243
25°	785	794	806	821	825	361
35°	676	698	723	752	761	423
45°	554	590	636	676	689	428
55°	425	472	540	587	604	380
65°	290	354	432	485	502	288
75°	161	234	318	374	391	170
85°	47	128	212	267	285	50
90°	14	94	185	236	253	10
95°	29	94	173	223	238	29
105°	82	121	190	236	251	87
115°	146	163	221	260	273	144
125°	208	211	252	286	297	186
135°	267	271	284	312	321	206
145°	322	325	327	335	340	202
155°	368	369	370	372	371	170
165°	401	400	400	403	401	113
175°	417	416	415	418	416	40
180°	418	418	418	418	418	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.3	902.3	902.3	902.3	902.3
2.5°	908.9	905.0	895.8	902.3	899.7
5°	905.0	901.0	893.2	901.0	899.7
7.5°	898.4	895.8	889.3	898.4	897.1
10°	890.6	888.0	884.0	894.5	893.2
12.5°	877.5	878.8	876.2	886.6	885.3
15°	863.1	865.7	865.7	877.5	876.2
17.5°	844.8	850.0	854.0	865.7	865.7
20°	826.5	833.0	838.3	852.6	852.6
22.5°	806.9	814.7	822.6	836.9	839.6
25°	784.6	793.8	805.6	821.3	825.2
27.5°	758.5	772.9	785.9	805.6	808.2
30°	732.3	749.3	766.3	787.3	791.2
32.5°	703.6	723.2	744.1	768.9	776.8
35°	676.1	698.3	723.2	751.9	761.1
37.5°	646.0	670.9	702.3	733.6	742.8
40°	615.9	644.7	680.0	714.0	725.8
42.5°	587.2	615.9	657.8	695.7	707.5
45°	554.5	589.8	635.6	676.1	689.2
47.5°	523.1	561.0	613.3	655.2	669.6
50°	490.4	530.9	589.8	634.3	648.6
52.5°	459.0	502.2	564.9	610.7	626.4
55°	425.0	472.1	540.1	587.2	604.2
57.5°	392.3	444.6	512.6	563.6	580.6
60°	357.0	413.2	487.8	537.5	555.8
62.5°	325.6	384.5	459.0	512.6	529.6
65°	290.3	354.4	431.6	485.2	502.2
67.5°	258.9	325.6	404.1	457.7	476.0
70°	224.9	292.9	374.0	430.2	445.9
72.5°	193.5	264.2	346.5	401.5	421.1
75°	160.9	234.1	317.8	374.0	391.0
77.5°	129.5	205.3	290.3	346.5	364.9
80°	98.1	177.9	262.9	317.8	336.1
82.5°	71.9	150.4	236.7	291.6	308.6
85°	47.1	128.2	211.9	266.8	285.1
87.5°	28.8	107.2	190.9	244.5	261.5
90°	13.5	93.5	184.9	236.5	252.6
92.5°	19.6	91.7	171.8	223.2	238.8
95°	28.8	93.8	173.0	222.7	237.7
97.5°	39.9	99.2	176.4	224.8	240.5
100°	54.0	105.1	179.4	227.8	241.8
102.5°	67.4	112.7	184.7	232.1	246.2
105°	82.3	121.3	190.0	236.5	250.9
107.5°	98.5	131.3	196.7	241.6	254.2
110°	112.7	141.0	205.1	246.9	260.3



TEST NUMBER: P999033

CATALOG NUMBER: SA2XXDIP-B865D330UB27-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	129.6	152.7	212.5	253.3	266.9
115°	146.2	162.7	220.9	259.8	273.1
117.5°	161.5	174.8	227.9	266.1	278.1
120°	178.0	186.1	235.6	272.2	285.6
122.5°	193.2	198.0	244.6	278.9	290.0
125°	207.7	210.9	251.8	286.0	297.4
127.5°	223.3	225.8	259.7	291.0	301.8
130°	237.7	241.0	267.8	298.5	307.5
132.5°	253.9	256.2	276.1	304.4	313.9
135°	266.7	270.6	284.4	311.5	320.9
137.5°	282.2	285.4	292.6	317.2	324.8
140°	296.0	297.9	302.2	323.1	329.6
142.5°	310.1	312.0	313.0	329.1	334.2
145°	322.2	324.6	326.8	334.9	340.1
147.5°	334.2	337.3	338.7	340.7	343.2
150°	346.5	348.6	350.0	351.1	350.0
152.5°	357.4	359.5	361.3	362.7	361.3
155°	368.4	369.4	370.5	372.2	371.2
157.5°	377.9	378.6	379.3	381.7	380.0
160°	386.3	387.0	387.4	389.5	388.1
162.5°	394.1	394.1	394.4	396.9	395.1
165°	400.8	400.4	400.4	402.9	401.1
167.5°	406.8	405.7	405.7	408.2	406.4
170°	411.4	410.3	409.9	412.4	410.3
172.5°	414.5	413.5	413.1	415.6	413.5
175°	417.0	415.9	415.2	417.7	415.6
177.5°	418.4	417.3	416.6	418.8	416.6
180°	417.7	417.7	417.7	417.7	417.7

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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	15.80	16.91	16.59	17.73	18.74	18.88	19.98	19.67	20.81	21.82
	3H	17.28	18.28	18.08	19.11	20.15	21.48	22.49	22.29	23.32	24.36
	4H	17.76	18.72	18.58	19.56	20.61	22.75	23.70	23.56	24.54	25.59
	6H	18.06	18.94	18.89	19.79	20.86	24.05	24.94	24.89	25.78	26.85
	8H	18.13	18.97	18.97	19.84	20.90	24.72	25.57	25.56	26.43	27.50
	12H	18.15	18.96	19.00	19.82	20.91	25.45	26.26	26.30	27.12	28.22
4H	2H	16.88	17.83	17.70	18.67	19.72	19.23	20.19	20.06	21.03	22.08
	3H	18.60	19.41	19.44	20.29	21.35	22.04	22.85	22.88	23.72	24.79
	4H	19.23	19.98	20.08	20.85	21.94	23.47	24.21	24.31	25.08	26.17
	6H	19.66	20.32	20.53	21.21	22.30	24.95	25.60	25.81	26.50	27.59
	8H	19.78	20.39	20.64	21.28	22.39	25.71	26.33	26.58	27.22	28.33
	12H	19.83	20.39	20.72	21.30	22.42	26.55	27.11	27.44	28.02	29.14
8H	4H	20.04	20.66	20.91	21.55	22.66	23.63	24.25	24.50	25.13	26.24
	6H	20.69	21.21	21.58	22.14	23.24	25.27	25.79	26.16	26.72	27.83
	8H	20.91	21.38	21.81	22.30	23.42	26.16	26.63	27.07	27.55	28.68
	12H	21.06	21.47	21.97	22.39	23.56	27.17	27.58	28.08	28.50	29.67
12H	4H	20.25	20.81	21.14	21.72	22.84	23.62	24.18	24.50	25.08	26.20
	6H	21.02	21.49	21.93	22.41	23.54	25.30	25.76	26.20	26.69	27.81
	8H	21.34	21.76	22.25	22.67	23.84	26.24	26.65	27.15	27.57	28.74