

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: P999120

Luminaire Tested: SA2XXDIP-B865D530UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P999120
REPORT IS A COMBINATION OF REPORTS P984869 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D530UB30-4F0-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

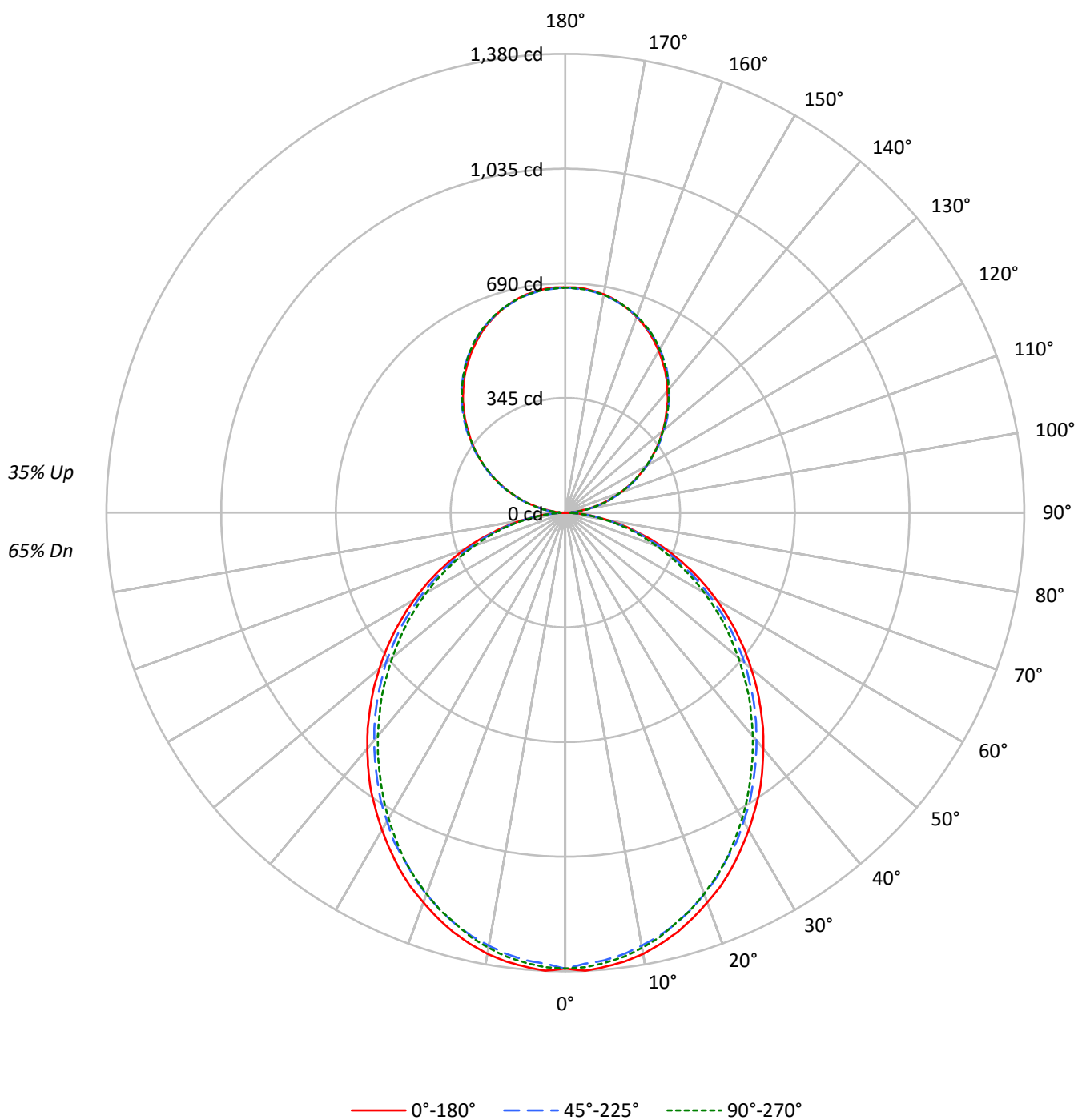
Lumens per Lamp: N/A
Luminaire Lumens: 5385.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 62.2
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70
1	101	97	93	89	95	91	88	84	80	78	75	71	69	67	62	60	59
2	92	84	78	73	86	80	74	69	70	66	62	62	59	56	54	52	50
3	84	74	67	61	79	70	63	58	62	57	53	55	51	47	48	45	42
4	77	66	58	51	72	62	55	49	55	50	45	49	44	41	43	39	36
5	71	59	50	44	66	56	48	42	50	43	39	44	39	35	39	35	32
6	65	53	44	39	61	50	42	37	45	39	34	40	35	31	35	31	28
7	60	48	40	34	57	45	38	33	41	34	30	36	31	27	32	28	25
8	56	43	36	30	53	41	34	29	37	31	27	33	28	25	30	25	22
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20
10	49	37	29	24	46	35	28	23	32	26	22	28	24	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21715	21715	21715
5°	21750	20698	20551
10°	21572	19755	19363
15°	21257	18804	18112
20°	20830	17770	16928
25°	20403	16691	15747
30°	19868	15677	14505
35°	19364	14605	13287
40°	18739	13549	12135
45°	18121	12501	11007
50°	17443	11436	9834
55°	16728	10296	8724
60°	15931	9062	7571
65°	15052	7808	6357
70°	13936	6435	5134
75°	12396	4961	3964
80°	10531	3370	2550
85°	7642	1567	1086

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18121 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	2.4
10°-20°	363.3	6.7
20°-30°	533.8	9.9
30°-40°	620.0	11.5
40°-50°	619.2	11.5
50°-60°	540.0	10.0
60°-70°	399.1	7.4
70°-80°	225.8	4.2
80°-90°	61.5	1.1
90°-100°	41.9	0.8
100°-110°	133.2	2.5
110°-120°	227.8	4.2
120°-130°	299.7	5.6
130°-140°	336.4	6.2
140°-150°	329.9	6.1
150°-160°	276.7	5.1
160°-170°	183.5	3.4
170°-180°	64.1	1.2
0°-30°	1026.2	19.1
0°-40°	1646.2	30.6
0°-60°	2805.4	52.1
0°-90°	3491.9	64.8
90°-120°	402.9	7.5
90°-150°	1368.8	25.4
90°-180°	1893.0	35.2
0°-180°	5385.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1372	1366	1352	1362	1360	130
15°	1306	1298	1281	1286	1279	368
25°	1182	1171	1149	1152	1149	544
35°	1020	1006	985	977	971	637
45°	830	820	801	786	781	640
55°	628	620	604	588	582	561
65°	423	416	402	390	384	419
75°	222	219	212	204	207	236
85°	54	53	51	48	46	60
90°	1	7	20	19	19	5
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371.8	1371.8	1371.8	1371.8	1371.8
2.5°	1379.7	1373.1	1358.6	1371.8	1369.1
5°	1371.8	1366.5	1352.0	1362.5	1359.9
7.5°	1362.5	1354.6	1340.1	1350.7	1348.0
10°	1348.0	1338.8	1323.0	1333.5	1329.6
12.5°	1328.2	1320.3	1304.5	1311.1	1308.5
15°	1305.8	1297.9	1280.8	1286.0	1279.4
17.5°	1278.1	1270.2	1253.1	1259.7	1253.1
20°	1247.8	1239.9	1221.4	1225.4	1220.1
22.5°	1217.4	1205.6	1188.4	1188.4	1185.8
25°	1181.8	1171.3	1148.9	1151.5	1148.9
27.5°	1142.3	1133.0	1115.9	1111.9	1105.3
30°	1102.7	1092.1	1072.4	1068.4	1063.1
32.5°	1060.5	1052.6	1031.5	1023.6	1018.3
35°	1019.6	1006.4	985.3	977.4	970.8
37.5°	973.4	961.6	940.5	931.2	924.6
40°	925.9	915.4	894.3	882.4	877.1
42.5°	879.8	869.2	848.1	834.9	827.0
45°	829.7	820.4	800.6	786.1	780.9
47.5°	780.9	771.6	750.5	736.0	728.1
50°	729.4	722.8	704.4	685.9	679.3
52.5°	679.3	670.1	652.9	638.4	629.2
55°	627.8	619.9	604.1	588.3	581.7
57.5°	576.4	569.8	552.7	536.8	531.6
60°	525.0	519.7	501.2	486.7	482.8
62.5°	474.8	465.6	452.4	439.2	434.0
65°	423.4	415.5	402.3	390.4	383.8
67.5°	370.6	364.0	352.2	342.9	337.7
70°	321.8	316.6	304.7	295.5	290.2
72.5°	271.7	266.4	259.8	250.6	246.7
75°	221.6	219.0	212.4	204.4	207.1
77.5°	176.7	171.5	168.8	164.9	160.9
80°	131.9	130.6	127.9	124.0	121.3
82.5°	89.7	89.7	88.4	83.1	83.1
85°	54.1	52.8	51.4	47.5	46.2
87.5°	23.7	21.1	18.5	14.5	13.2
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

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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

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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	17.20	18.21	18.02	19.05	20.09	17.98	18.99	18.80	19.83	20.87
	3H	18.55	19.45	19.38	20.31	21.38	19.62	20.53	20.45	21.38	22.45
	4H	18.96	19.82	19.81	20.67	21.75	20.21	21.07	21.06	21.93	23.01
	6H	19.18	19.98	20.04	20.84	21.94	20.63	21.42	21.49	22.28	23.38
	8H	19.22	19.97	20.09	20.86	21.95	20.74	21.49	21.61	22.38	23.47
	12H	19.22	19.93	20.09	20.81	21.93	20.79	21.51	21.66	22.39	23.51
4H	2H	17.68	18.54	18.54	19.40	20.48	18.33	19.19	19.18	20.04	21.12
	3H	19.21	19.93	20.08	20.82	21.92	20.12	20.84	20.98	21.73	22.82
	4H	19.73	20.38	20.60	21.27	22.39	20.81	21.46	21.68	22.35	23.47
	6H	20.04	20.60	20.93	21.51	22.64	21.31	21.88	22.20	22.79	23.91
	8H	20.10	20.63	20.99	21.53	22.67	21.46	21.99	22.35	22.89	24.03
	12H	20.11	20.58	21.02	21.51	22.65	21.53	22.00	22.44	22.93	24.07
8H	4H	19.91	20.44	20.81	21.35	22.49	20.91	21.43	21.80	22.34	23.48
	6H	20.30	20.74	21.23	21.69	22.83	21.48	21.92	22.40	22.87	24.00
	8H	20.41	20.80	21.34	21.74	22.89	21.67	22.06	22.60	23.00	24.15
	12H	20.45	20.79	21.38	21.72	22.93	21.78	22.12	22.71	23.05	24.26
12H	4H	19.90	20.38	20.82	21.31	22.45	20.88	21.35	21.79	22.28	23.42
	6H	20.32	20.71	21.25	21.65	22.81	21.47	21.86	22.41	22.80	23.96
	8H	20.44	20.79	21.38	21.72	22.92	21.68	22.02	22.61	22.95	24.16