

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: P997871

Luminaire Tested: SA2XXDIP-B1005D330UB30-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997871
REPORT IS A COMBINATION OF REPORTS P983608 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB30-4F0-XX-W2A-F
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

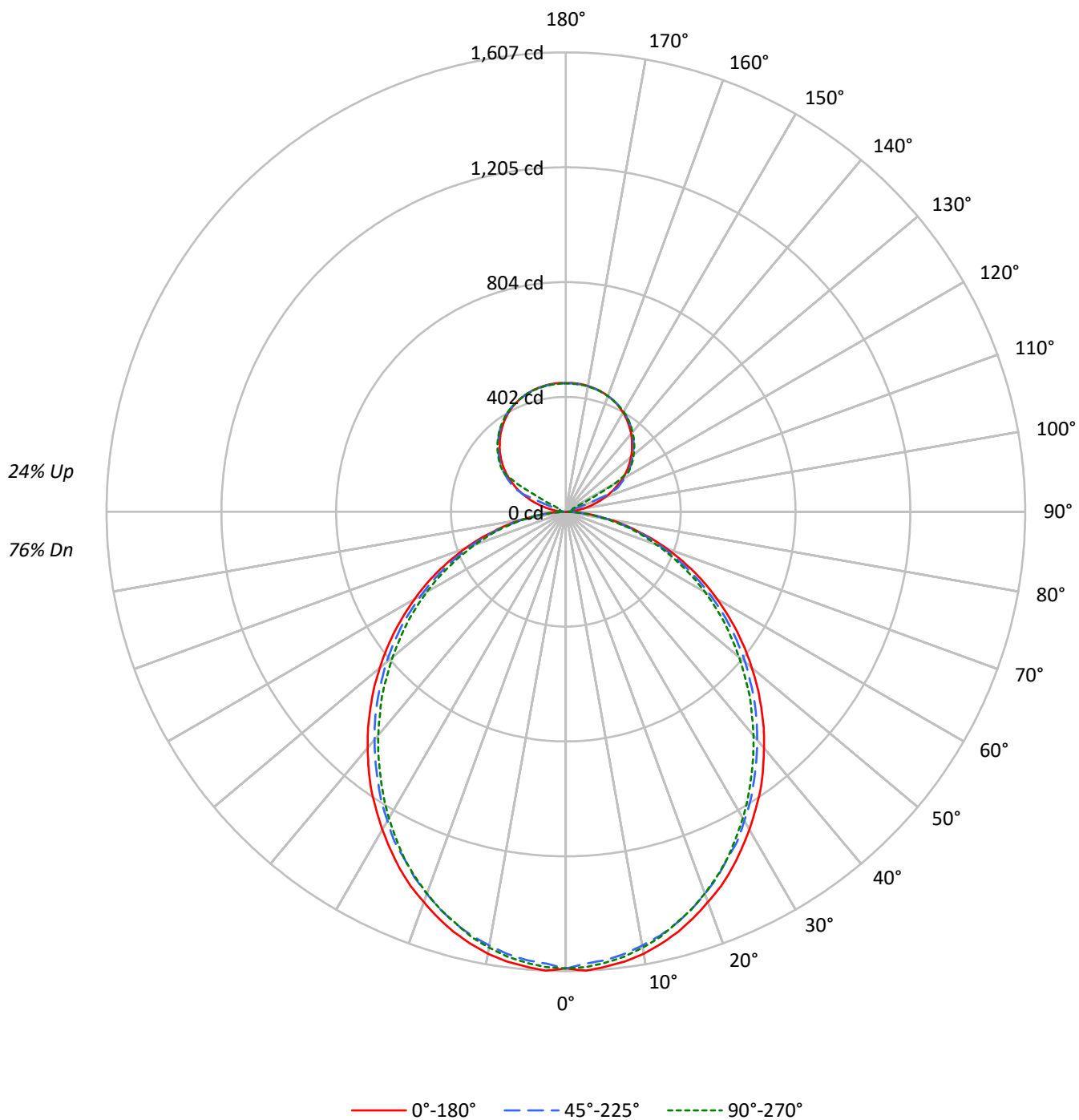
Lumens per Lamp: N/A
Luminaire Lumens: 5383.0 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70.6
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	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80
1	104	99	95	91	98	94	91	88	86	83	80	78	76	74	70	69	67
2	94	87	80	75	89	83	77	72	75	71	67	68	65	62	62	59	57
3	86	76	68	62	82	73	66	60	66	61	56	60	56	52	55	51	48
4	79	68	59	53	75	65	57	51	59	53	48	54	49	45	49	45	42
5	73	60	52	46	69	58	50	44	53	47	42	49	43	39	44	40	36
6	67	54	46	40	63	52	44	39	48	41	36	44	38	34	40	36	32
7	62	49	41	35	59	47	40	34	44	37	32	40	35	30	37	32	29
8	58	45	37	31	55	43	36	30	40	33	29	37	31	27	34	29	26
9	54	41	33	28	51	40	32	27	37	30	26	34	28	25	31	27	23
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25286	25286	25286
5°	25327	24101	23931
10°	25120	23004	22546
15°	24753	21896	21092
20°	24255	20693	19713
25°	23759	19436	18336
30°	23137	18254	16892
35°	22549	17008	15473
40°	21822	15778	14131
45°	21100	14558	12816
50°	20312	13317	11451
55°	19481	11990	10160
60°	18550	10553	8816
65°	17526	9093	7403
70°	16232	7493	5978
75°	14433	5777	4615
80°	12263	3926	2971
85°	8899	1826	1265

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21100 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.3	2.8
10°-20°	423.0	7.9
20°-30°	621.6	11.5
30°-40°	722.0	13.4
40°-50°	721.1	13.4
50°-60°	628.8	11.7
60°-70°	464.8	8.6
70°-80°	263.0	4.9
80°-90°	70.2	1.3
90°-100°	14.8	0.3
100°-110°	55.3	1.0
110°-120°	146.6	2.7
120°-130°	243.1	4.5
130°-140°	258.3	4.8
140°-150°	240.0	4.5
150°-160°	193.0	3.6
160°-170°	124.3	2.3
170°-180°	42.8	0.8
0°-30°	1195.0	22.2
0°-40°	1917.0	35.6
0°-60°	3266.8	60.7
0°-90°	4064.8	75.5
90°-120°	216.7	4.0
90°-150°	958.1	17.8
90°-180°	1318.0	24.5
0°-180°	5383.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1597	1597	1597	1597	1597	
5°	1597	1591	1574	1587	1584	152
15°	1521	1511	1491	1498	1490	428
25°	1376	1364	1338	1341	1338	633
35°	1187	1172	1147	1138	1130	741
45°	966	955	932	915	909	746
55°	731	722	704	685	677	654
65°	493	484	468	455	447	487
75°	258	255	247	238	241	275
85°	63	61	60	55	54	70
90°	0	4	6	8	9	5
95°	21	10	13	14	14	25
105°	99	109	20	23	25	106
115°	187	193	201	50	27	184
125°	264	269	275	277	278	236
135°	327	332	335	339	338	253
145°	380	379	385	387	386	237
155°	418	415	419	421	418	193
165°	440	439	440	442	440	124
175°	451	448	449	451	448	43
180°	450	450	450	450	450	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1597.4	1597.4	1597.4	1597.4	1597.4
2.5°	1606.6	1598.9	1582.0	1597.4	1594.3
5°	1597.4	1591.2	1574.3	1586.6	1583.6
7.5°	1586.6	1577.4	1560.5	1572.8	1569.7
10°	1569.7	1559.0	1540.6	1552.8	1548.2
12.5°	1546.7	1537.5	1519.1	1526.7	1523.7
15°	1520.6	1511.4	1491.4	1497.5	1489.9
17.5°	1488.3	1479.1	1459.1	1466.8	1459.1
20°	1453.0	1443.8	1422.3	1426.9	1420.8
22.5°	1417.7	1403.9	1383.9	1383.9	1380.8
25°	1376.2	1363.9	1337.8	1340.9	1337.8
27.5°	1330.1	1319.4	1299.4	1294.8	1287.1
30°	1284.1	1271.8	1248.7	1244.1	1238.0
32.5°	1234.9	1225.7	1201.1	1191.9	1185.8
35°	1187.3	1171.9	1147.4	1138.1	1130.5
37.5°	1133.5	1119.7	1095.1	1084.4	1076.7
40°	1078.2	1065.9	1041.4	1027.5	1021.4
42.5°	1024.5	1012.2	987.6	972.3	963.0
45°	966.1	955.4	932.3	915.4	909.3
47.5°	909.3	898.5	874.0	857.1	847.8
50°	849.4	841.7	820.2	798.7	791.0
52.5°	791.0	780.3	760.3	743.4	732.6
55°	731.1	721.9	703.5	685.0	677.4
57.5°	671.2	663.5	643.6	625.1	619.0
60°	611.3	605.2	583.7	566.8	562.2
62.5°	552.9	542.2	526.8	511.5	505.3
65°	493.0	483.8	468.5	454.6	447.0
67.5°	431.6	423.9	410.1	399.3	393.2
70°	374.8	368.6	354.8	344.1	337.9
72.5°	316.4	310.3	302.6	291.8	287.2
75°	258.0	255.0	247.3	238.1	241.1
77.5°	205.8	199.7	196.6	192.0	187.4
80°	153.6	152.1	149.0	144.4	141.3
82.5°	104.4	104.4	102.9	96.8	96.8
85°	63.0	61.4	59.9	55.3	53.8
87.5°	27.6	24.6	21.5	16.9	15.4
90°	0.3	3.9	6.5	8.1	8.8
92.5°	8.1	6.8	7.8	8.5	8.8
95°	21.1	10.4	12.7	14.3	14.0
97.5°	38.1	11.4	16.6	17.6	17.9
100°	57.6	13.0	18.5	21.1	21.8
102.5°	79.1	78.4	19.2	22.8	23.8
105°	98.9	108.7	19.8	23.4	24.7
107.5°	122.0	130.1	20.5	24.1	25.4
110°	144.1	151.0	56.9	24.4	25.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	165.0	170.8	165.3	25.1	26.0
115°	187.1	192.6	200.7	50.1	26.7
117.5°	206.3	212.8	218.3	171.8	86.5
120°	227.8	232.6	238.5	242.4	198.5
122.5°	246.0	251.2	257.7	259.6	260.0
125°	264.5	268.7	274.9	277.2	278.2
127.5°	281.4	286.0	290.9	294.1	294.5
130°	297.4	302.6	306.2	309.7	309.4
132.5°	313.6	317.9	321.5	324.4	324.1
135°	327.3	332.5	335.4	338.7	338.0
137.5°	341.6	345.5	348.8	352.0	351.1
140°	355.6	358.2	361.8	364.7	363.1
142.5°	367.3	369.6	373.8	376.4	374.8
145°	379.7	379.4	384.9	387.2	385.6
147.5°	390.4	389.5	395.0	396.6	395.3
150°	400.8	398.6	403.8	405.7	404.1
152.5°	409.6	407.0	411.9	413.9	411.6
155°	418.1	415.2	419.1	421.0	418.4
157.5°	424.9	422.3	425.2	427.5	424.9
160°	430.8	428.8	430.8	432.7	430.5
162.5°	436.0	434.0	435.7	437.9	435.0
165°	440.5	438.6	439.6	441.8	439.6
167.5°	444.1	442.2	443.1	445.4	442.5
170°	447.0	445.1	445.7	448.0	445.1
172.5°	449.0	447.0	447.7	450.0	447.0
175°	450.6	448.3	449.0	451.3	448.0
177.5°	451.3	449.0	449.3	451.6	448.7
180°	449.6	449.6	449.6	449.6	449.6



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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	18.54	19.69	19.25	20.41	21.27	19.32	20.47	20.03	21.20	22.05
	3H	19.90	20.93	20.62	21.67	22.55	20.97	22.00	21.69	22.74	23.62
	4H	20.32	21.29	21.05	22.04	22.93	21.58	22.55	22.31	23.29	24.19
	6H	20.55	21.45	21.30	22.20	23.12	21.99	22.89	22.74	23.65	24.56
	8H	20.59	21.45	21.35	22.22	23.13	22.11	22.97	22.87	23.74	24.65
	12H	20.59	21.41	21.36	22.18	23.12	22.17	22.98	22.93	23.75	24.69
4H	2H	19.05	20.02	19.78	20.76	21.66	19.69	20.66	20.43	21.41	22.30
	3H	20.59	21.40	21.34	22.18	23.10	21.49	22.31	22.24	23.09	24.00
	4H	21.11	21.85	21.87	22.63	23.57	22.19	22.93	22.95	23.71	24.65
	6H	21.43	22.07	22.21	22.87	23.82	22.70	23.34	23.48	24.15	25.10
	8H	21.49	22.09	22.28	22.89	23.85	22.85	23.45	23.64	24.25	25.21
	12H	21.50	22.04	22.31	22.86	23.83	22.93	23.47	23.73	24.29	25.26
8H	4H	21.30	21.90	22.09	22.70	23.67	22.30	22.90	23.08	23.70	24.66
	6H	21.70	22.20	22.52	23.04	24.00	22.88	23.37	23.69	24.22	25.18
	8H	21.81	22.25	22.63	23.09	24.07	23.07	23.51	23.90	24.35	25.33
	12H	21.85	22.24	22.68	23.07	24.11	23.18	23.57	24.01	24.40	25.44
12H	4H	21.30	21.84	22.11	22.66	23.63	22.27	22.81	23.08	23.64	24.61
	6H	21.72	22.16	22.55	23.00	23.98	22.87	23.31	23.70	24.15	25.14
	8H	21.85	22.24	22.68	23.07	24.11	23.08	23.47	23.91	24.30	25.34