

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: P997870

Luminaire Tested: SA2XXDIP-B1005D330UB30-4F0-XX-W2A-D4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997870
REPORT IS A COMBINATION OF REPORTS P983607 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-D4
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

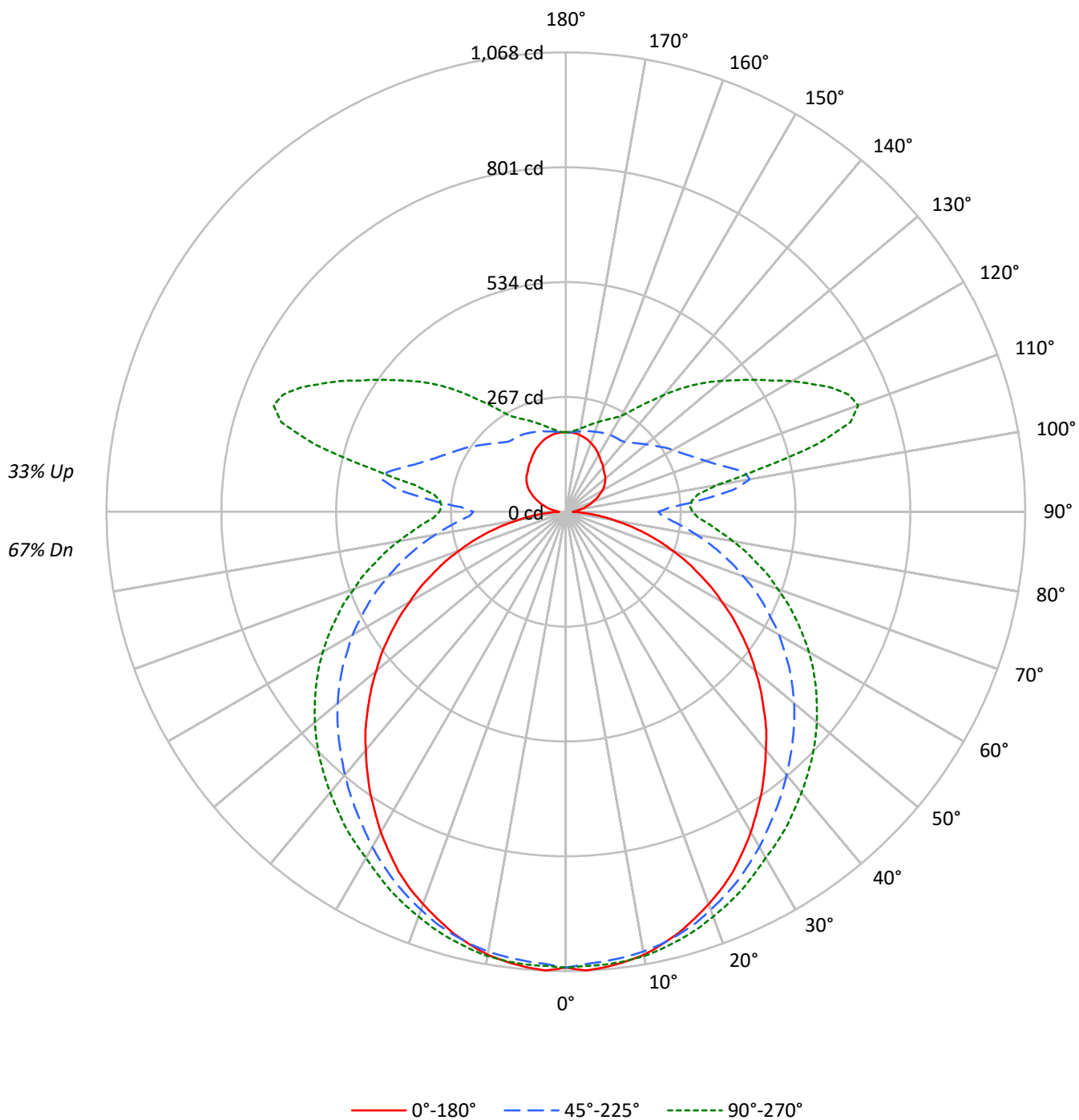
Lumens per Lamp: N/A
Luminaire Lumens: 5333.4 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	100	94	90	85	94	89	85	81	79	75	72	69	67	64	61	59	57
2	90	81	74	68	84	77	70	65	68	63	58	60	56	52	52	49	46
3	82	71	62	56	76	67	59	53	59	53	48	52	47	43	46	42	39
4	74	62	53	47	70	59	51	45	52	46	41	46	41	37	40	36	33
5	68	55	46	40	64	52	44	38	47	40	35	41	36	31	36	32	28
6	63	50	41	34	59	47	39	33	42	35	30	37	32	27	33	28	25
7	58	45	36	30	54	42	34	29	38	31	26	34	28	24	30	25	22
8	54	41	32	27	50	38	31	25	35	28	23	31	25	21	27	23	19
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16776	16776	16776
5°	16852	16061	15970
10°	16739	15504	15278
15°	16503	14928	14568
20°	16206	14325	13895
25°	15911	13746	13284
30°	15499	13158	12680
35°	15081	12591	12236
40°	14643	12101	11794
45°	14224	11657	11410
50°	13774	11247	11030
55°	13302	10812	10643
60°	12723	10358	10237
65°	12122	9838	9768
70°	11442	9278	9266
75°	10567	8720	8791
80°	9197	8135	8300
85°	7811	7586	7873

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14224 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	1.9
10°-20°	288.2	5.4
20°-30°	436.6	8.2
30°-40°	531.7	10.0
40°-50°	572.0	10.7
50°-60°	555.5	10.4
60°-70°	485.2	9.1
70°-80°	373.4	7.0
80°-90°	251.3	4.7
90°-100°	247.4	4.6
100°-110°	379.2	7.1
110°-120°	349.4	6.6
120°-130°	265.2	5.0
130°-140°	195.4	3.7
140°-150°	136.2	2.6
150°-160°	93.4	1.8
160°-170°	55.0	1.0
170°-180°	17.9	0.3
0°-30°	825.2	15.5
0°-40°	1356.9	25.4
0°-60°	2484.5	46.6
0°-90°	3594.3	67.4
90°-120°	976.0	18.3
90°-150°	1572.8	29.5
90°-180°	1739.0	32.6
0°-180°	5333.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1063	1058	1049	1058	1057	101
15°	1014	1017	1017	1031	1029	286
25°	922	932	946	965	969	424
35°	794	820	849	883	894	496
45°	651	693	746	794	810	503
55°	499	554	634	690	710	447
65°	341	416	507	570	590	339
75°	189	275	373	439	459	200
85°	55	150	249	313	335	58
90°	16	109	215	276	294	12
95°	25	115	316	288	294	22
105°	51	118	395	657	603	55
115°	82	120	312	593	682	81
125°	110	129	264	462	535	98
135°	127	151	226	359	416	98
145°	143	164	208	268	300	90
155°	162	175	202	229	238	75
165°	177	182	194	205	209	50
175°	184	185	186	188	188	18
180°	185	185	185	185	185	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1059.8	1059.8	1059.8	1059.8	1059.8
2.5°	1067.5	1062.9	1052.2	1059.8	1056.8
5°	1062.9	1058.3	1049.1	1058.3	1056.8
7.5°	1055.2	1052.2	1044.5	1055.2	1053.7
10°	1046.0	1042.9	1038.3	1050.6	1049.1
12.5°	1030.7	1032.2	1029.1	1041.4	1039.9
15°	1013.8	1016.8	1016.8	1030.7	1029.1
17.5°	992.3	998.4	1003.0	1016.8	1016.8
20°	970.8	978.4	984.6	1001.5	1001.5
22.5°	947.7	956.9	966.1	983.0	986.1
25°	921.6	932.4	946.2	964.6	969.2
27.5°	890.9	907.8	923.1	946.2	949.3
30°	860.2	880.1	900.1	924.7	929.3
32.5°	826.4	849.4	874.0	903.2	912.4
35°	794.1	820.2	849.4	883.2	894.0
37.5°	758.8	788.0	824.8	861.7	872.5
40°	723.5	757.3	798.7	838.7	852.5
42.5°	689.7	723.5	772.6	817.2	831.0
45°	651.3	692.7	746.5	794.1	809.5
47.5°	614.4	658.9	720.4	769.5	786.4
50°	576.0	623.6	692.7	745.0	761.9
52.5°	539.1	589.8	663.6	717.3	735.7
55°	499.2	554.5	634.4	689.7	709.6
57.5°	460.8	522.2	602.1	662.0	682.0
60°	419.3	485.4	572.9	631.3	652.8
62.5°	382.5	451.6	539.1	602.1	622.1
65°	341.0	416.3	506.9	569.9	589.8
67.5°	304.1	382.5	474.6	537.6	559.1
70°	264.2	344.1	439.3	505.3	523.8
72.5°	227.3	310.3	407.0	471.6	494.6
75°	188.9	274.9	373.3	439.3	459.3
77.5°	152.1	241.2	341.0	407.0	428.5
80°	115.2	208.9	308.7	373.3	394.8
82.5°	84.5	176.6	278.0	342.5	362.5
85°	55.3	150.5	248.8	313.3	334.8
87.5°	33.8	126.0	224.3	287.2	307.2
90°	15.8	109.2	214.9	275.8	294.3
92.5°	19.1	112.0	243.6	274.0	289.0
95°	24.7	115.0	315.9	287.6	293.9
97.5°	29.3	117.1	393.0	328.2	309.1
100°	38.2	117.0	434.3	420.6	354.5
102.5°	44.7	117.4	425.3	553.4	463.0
105°	51.1	117.6	395.4	656.6	603.3
107.5°	59.6	117.7	366.8	686.0	693.7
110°	66.5	118.0	345.6	667.0	723.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	74.3	119.6	327.0	633.2	711.8
115°	82.5	119.5	312.5	592.9	682.1
117.5°	89.5	121.0	298.9	555.3	643.5
120°	97.3	122.4	287.2	519.1	607.6
122.5°	104.8	125.4	276.6	489.6	567.5
125°	109.7	129.2	264.0	462.0	535.0
127.5°	115.0	134.2	253.7	435.4	502.4
130°	119.7	140.1	243.8	410.0	473.4
132.5°	123.9	145.8	234.3	384.2	445.3
135°	126.6	150.8	226.2	358.8	415.7
137.5°	130.5	155.0	218.5	333.0	385.4
140°	135.1	157.4	212.0	309.1	354.2
142.5°	139.7	160.6	208.9	287.2	324.6
145°	142.8	164.2	208.2	267.8	299.8
147.5°	147.8	167.0	207.2	251.0	275.1
150°	152.8	169.9	206.1	241.6	256.9
152.5°	157.8	172.7	204.3	235.0	246.6
155°	162.4	175.4	202.2	228.6	237.7
157.5°	166.3	177.5	200.1	222.6	229.9
160°	170.2	179.6	197.9	216.6	222.4
162.5°	174.1	181.2	196.2	210.9	215.3
165°	177.0	182.3	193.7	205.4	208.6
167.5°	179.4	183.4	191.5	200.4	202.2
170°	181.9	183.9	189.8	195.8	196.5
172.5°	183.4	184.4	187.6	191.7	191.9
175°	184.4	184.6	186.2	188.5	188.0
177.5°	185.1	184.8	184.8	186.2	185.1
180°	184.8	184.8	184.8	184.8	184.8

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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	16.44	17.56	17.22	18.37	19.37	19.52	20.63	20.30	21.45	22.44
	3H	17.92	18.93	18.71	19.75	20.78	22.12	23.14	22.91	23.96	24.98
	4H	18.40	19.37	19.21	20.20	21.23	23.38	24.35	24.19	25.18	26.21
	6H	18.70	19.60	19.52	20.43	21.48	24.69	25.59	25.52	26.43	27.47
	8H	18.77	19.62	19.60	20.48	21.53	25.36	26.22	26.19	27.07	28.12
	12H	18.79	19.61	19.63	20.46	21.54	26.09	26.91	26.93	27.76	28.84
4H	2H	17.52	18.48	18.33	19.31	20.34	19.87	20.84	20.69	21.67	22.70
	3H	19.24	20.07	20.07	20.93	21.98	22.68	23.50	23.51	24.37	25.42
	4H	19.88	20.63	20.71	21.49	22.57	24.11	24.86	24.95	25.72	26.80
	6H	20.30	20.97	21.16	21.85	22.93	25.59	26.25	26.44	27.14	28.21
	8H	20.42	21.04	21.28	21.92	23.02	26.35	26.98	27.21	27.86	28.95
	12H	20.48	21.04	21.35	21.94	23.04	27.20	27.76	28.07	28.66	29.76
8H	4H	20.69	21.31	21.54	22.19	23.28	24.27	24.90	25.13	25.78	26.87
	6H	21.33	21.86	22.21	22.78	23.87	25.91	26.44	26.80	27.36	28.45
	8H	21.55	22.03	22.45	22.94	24.05	26.81	27.28	27.70	28.19	29.30
	12H	21.70	22.12	22.60	23.03	24.19	27.81	28.23	28.71	29.14	30.30
12H	4H	20.90	21.46	21.77	22.36	23.46	24.26	24.83	25.14	25.73	26.82
	6H	21.67	22.14	22.56	23.05	24.16	25.94	26.41	26.83	27.33	28.43
	8H	21.98	22.40	22.88	23.31	24.47	26.88	27.30	27.78	28.21	29.37