

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: P998770

Luminaire Tested: SA2XXDIP-B675D330UB35-4F0-XX-W2A-D4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998770
REPORT IS A COMBINATION OF REPORTS P984516 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB35-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

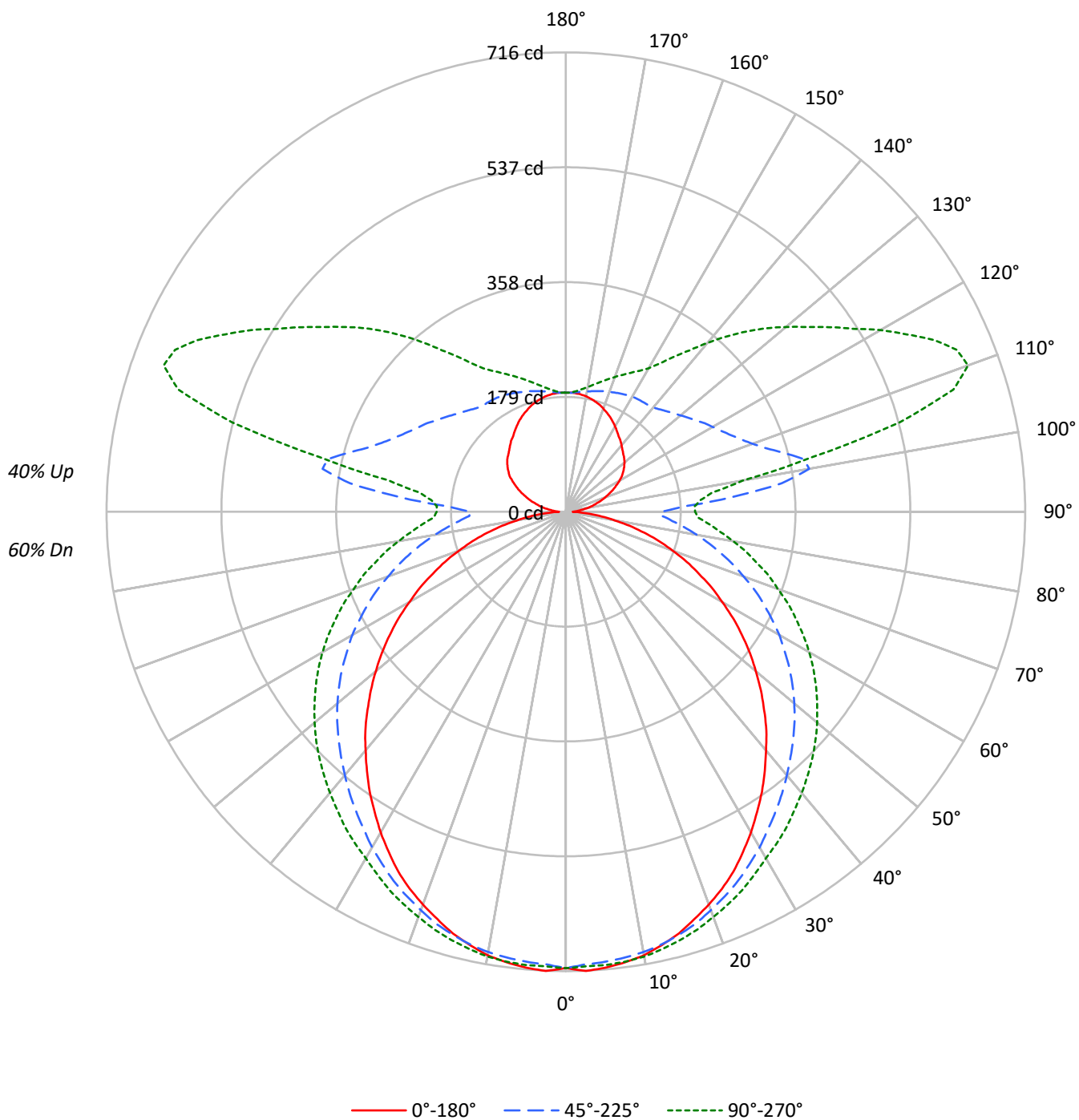
Lumens per Lamp: N/A
Luminaire Lumens: 4009.4 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65
1	98	93	88	84	91	87	83	79	75	72	69	65	62	60	55	53	52
2	89	80	73	67	82	75	69	64	65	60	56	56	52	49	47	45	42
3	81	70	62	55	75	65	58	52	57	51	46	49	44	41	41	38	35
4	73	62	53	46	68	58	50	44	50	44	39	43	38	34	37	33	30
5	67	55	46	39	62	51	43	37	45	38	33	39	33	29	33	29	26
6	62	49	40	34	57	46	38	32	40	34	29	35	30	26	30	26	22
7	57	44	36	30	53	41	34	28	36	30	25	32	26	23	27	23	20
8	53	40	32	26	49	38	30	25	33	27	22	29	24	20	25	21	18
9	49	37	29	23	46	34	27	22	30	24	20	26	21	18	23	19	16
10	46	33	26	21	43	32	25	20	28	22	18	24	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11259	11259	11259
5°	11309	10779	10717
10°	11234	10404	10254
15°	11076	10019	9778
20°	10876	9614	9325
25°	10678	9225	8916
30°	10402	8831	8510
35°	10121	8451	8212
40°	9826	8121	7915
45°	9546	7823	7658
50°	9245	7548	7402
55°	8926	7255	7142
60°	8539	6952	6870
65°	8134	6603	6555
70°	7678	6226	6218
75°	7093	5851	5899
80°	6171	5460	5569
85°	5241	5092	5284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9546 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	1.7
10°-20°	193.4	4.8
20°-30°	293.0	7.3
30°-40°	356.8	8.9
40°-50°	383.9	9.6
50°-60°	372.8	9.3
60°-70°	325.6	8.1
70°-80°	250.6	6.2
80°-90°	169.0	4.2
90°-100°	191.0	4.8
100°-110°	339.0	8.5
110°-120°	323.2	8.1
120°-130°	251.0	6.3
130°-140°	189.8	4.7
140°-150°	135.7	3.4
150°-160°	93.9	2.3
160°-170°	55.3	1.4
170°-180°	18.0	0.4
0°-30°	553.8	13.8
0°-40°	910.7	22.7
0°-60°	1667.4	41.6
0°-90°	2412.6	60.2
90°-120°	853.3	21.3
90°-150°	1429.8	35.7
90°-180°	1597.0	39.8
0°-180°	4009.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	713	710	704	710	709	68
15°	680	682	682	692	691	192
25°	618	626	635	647	650	284
35°	533	550	570	593	600	333
45°	437	465	501	533	543	337
55°	335	372	426	463	476	300
65°	229	279	340	382	396	227
75°	127	184	250	295	308	134
85°	37	101	167	210	225	39
90°	11	75	148	189	202	8
95°	21	87	258	211	211	19
105°	49	101	353	598	538	52
115°	81	112	283	550	634	80
125°	109	129	248	433	502	97
135°	127	151	222	344	397	98
145°	144	165	209	266	296	90
155°	163	176	203	230	239	75
165°	178	183	195	206	210	50
175°	185	185	187	189	189	18
180°	186	186	186	186	186	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	711.3	711.3	711.3	711.3	711.3
2.5°	716.4	713.3	706.1	711.3	709.2
5°	713.3	710.3	704.1	710.3	709.2
7.5°	708.2	706.1	701.0	708.2	707.2
10°	702.0	699.9	696.8	705.1	704.1
12.5°	691.7	692.7	690.7	698.9	697.9
15°	680.4	682.4	682.4	691.7	690.7
17.5°	665.9	670.0	673.1	682.4	682.4
20°	651.5	656.6	660.8	672.1	672.1
22.5°	636.0	642.2	648.4	659.7	661.8
25°	618.5	625.7	635.0	647.4	650.5
27.5°	597.9	609.2	619.5	635.0	637.1
30°	577.3	590.7	604.1	620.6	623.7
32.5°	554.6	570.1	586.5	606.1	612.3
35°	532.9	550.5	570.1	592.7	600.0
37.5°	509.2	528.8	553.6	578.3	585.5
40°	485.5	508.2	536.0	562.8	572.1
42.5°	462.8	485.5	518.5	548.4	557.7
45°	437.1	464.9	501.0	532.9	543.3
47.5°	412.3	442.2	483.5	516.5	527.8
50°	386.6	418.5	464.9	500.0	511.3
52.5°	361.8	395.8	445.3	481.4	493.8
55°	335.0	372.1	425.7	462.8	476.2
57.5°	309.3	350.5	404.1	444.3	457.7
60°	281.4	325.7	384.5	423.7	438.1
62.5°	256.7	303.1	361.8	404.1	417.5
65°	228.8	279.4	340.2	382.4	395.8
67.5°	204.1	256.7	318.5	360.8	375.2
70°	177.3	230.9	294.8	339.1	351.5
72.5°	152.6	208.2	273.2	316.5	331.9
75°	126.8	184.5	250.5	294.8	308.2
77.5°	102.1	161.8	228.8	273.2	287.6
80°	77.3	140.2	207.2	250.5	264.9
82.5°	56.7	118.5	186.6	229.9	243.3
85°	37.1	101.0	167.0	210.3	224.7
87.5°	22.7	84.5	150.5	192.8	206.2
90°	10.7	74.9	148.2	188.9	201.5
92.5°	14.7	80.8	181.8	192.4	201.2
95°	20.7	87.4	258.4	210.6	210.8
97.5°	25.8	92.0	339.4	255.5	230.0
100°	34.7	95.0	385.1	352.4	280.4
102.5°	41.9	98.0	379.7	490.0	393.5
105°	48.8	100.7	353.2	597.6	538.4
107.5°	57.3	103.4	328.1	631.3	633.3
110°	64.8	106.3	309.8	616.2	667.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	72.6	109.8	294.7	586.0	659.3
115°	80.9	112.4	283.2	549.6	633.5
117.5°	88.4	115.9	273.1	515.4	598.9
120°	96.3	119.3	264.4	483.0	566.4
122.5°	103.8	123.9	256.9	457.1	530.6
125°	109.2	128.8	247.8	432.9	501.7
127.5°	114.6	134.4	240.6	410.2	473.0
130°	119.2	140.2	233.7	388.3	448.0
132.5°	123.5	145.9	227.1	366.0	423.3
135°	126.7	150.9	221.6	344.0	397.1
137.5°	130.6	155.2	216.5	321.8	370.7
140°	135.2	158.2	212.0	301.4	343.5
142.5°	139.9	161.4	209.9	282.4	317.4
145°	143.5	165.0	209.2	265.9	295.5
147.5°	148.5	167.8	208.1	251.6	274.4
150°	153.5	170.6	207.1	242.8	258.1
152.5°	158.5	173.5	205.3	236.2	247.8
155°	163.1	176.2	203.1	229.8	238.8
157.5°	167.1	178.3	201.0	223.7	231.0
160°	171.0	180.4	198.8	217.6	223.5
162.5°	174.9	182.0	197.1	211.9	216.3
165°	177.8	183.1	194.6	206.4	209.6
167.5°	180.3	184.2	192.4	201.4	203.1
170°	182.8	184.8	190.6	196.8	197.4
172.5°	184.2	185.2	188.5	192.6	192.8
175°	185.3	185.4	187.1	189.4	188.9
177.5°	186.0	185.6	185.6	187.1	186.0
180°	185.6	185.6	185.6	185.6	185.6

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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	14.49	15.52	15.34	16.40	17.51	17.57	18.59	18.42	19.48	20.59
	3H	15.96	16.89	16.83	17.78	18.92	20.17	21.10	21.03	21.99	23.13
	4H	16.44	17.33	17.32	18.23	19.37	21.43	22.31	22.30	23.21	24.36
	6H	16.74	17.56	17.63	18.46	19.62	22.73	23.55	23.62	24.45	25.62
	8H	16.80	17.58	17.70	18.51	19.67	23.39	24.18	24.29	25.10	26.26
	12H	16.82	17.57	17.73	18.49	19.68	24.12	24.87	25.03	25.79	26.98
4H	2H	15.56	16.44	16.44	17.34	18.49	17.91	18.80	18.80	19.70	20.84
	3H	17.28	18.03	18.17	18.96	20.12	20.72	21.47	21.61	22.40	23.56
	4H	17.91	18.60	18.81	19.52	20.71	22.14	22.83	23.04	23.75	24.94
	6H	18.33	18.94	19.25	19.88	21.07	23.62	24.22	24.53	25.17	26.36
	8H	18.44	19.01	19.37	19.95	21.16	24.38	24.95	25.30	25.89	27.09
	12H	18.49	19.01	19.44	19.97	21.18	25.21	25.73	26.16	26.69	27.90
8H	4H	18.71	19.28	19.63	20.22	21.42	22.30	22.86	23.22	23.81	25.01
	6H	19.35	19.83	20.30	20.81	22.01	23.93	24.41	24.88	25.39	26.60
	8H	19.57	20.00	20.53	20.97	22.19	24.82	25.25	25.78	26.23	27.44
	12H	19.71	20.10	20.68	21.06	22.33	25.83	26.21	26.79	27.17	28.44
12H	4H	18.92	19.43	19.86	20.39	21.60	22.28	22.80	23.22	23.76	24.97
	6H	19.69	20.11	20.64	21.09	22.31	23.96	24.39	24.92	25.36	26.58
	8H	20.00	20.38	20.96	21.35	22.61	24.90	25.28	25.86	26.24	27.51