

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: P998773

Luminaire Tested: SA2XXDIP-B675D330UB35-4F0-XX-W2A-F4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998773
REPORT IS A COMBINATION OF REPORTS P984519 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-F4
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

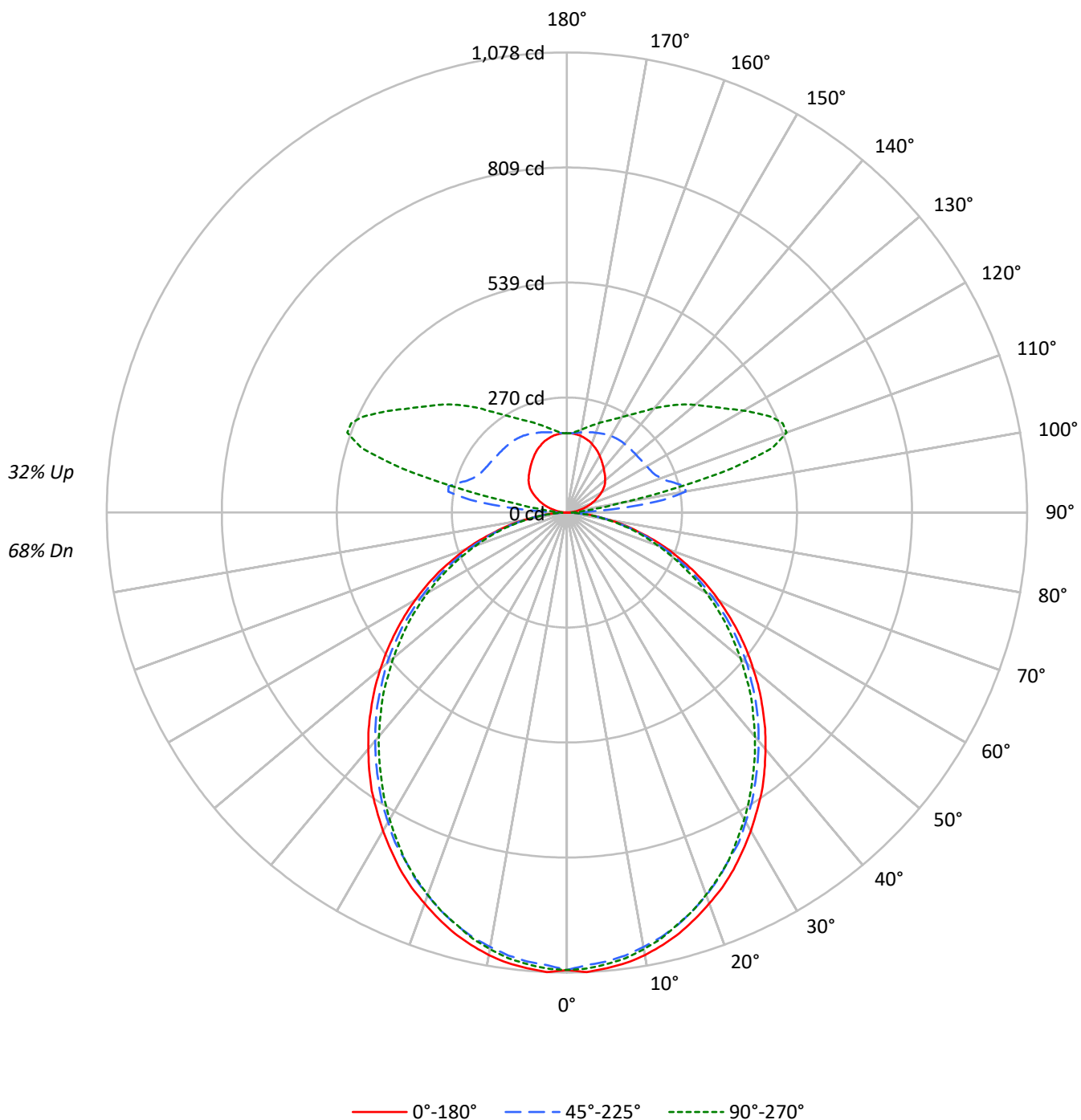
Lumens per Lamp: N/A
Luminaire Lumens: 4022.5 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	102	97	93	90	96	92	88	85	82	79	77	73	71	69	64	63	61
2	93	85	79	73	87	80	75	70	72	67	64	64	60	57	56	54	52
3	85	75	67	61	79	71	64	59	63	58	54	56	52	49	50	47	44
4	77	66	58	52	73	63	56	50	56	50	46	50	46	42	45	41	38
5	71	59	51	45	67	56	49	43	51	44	40	45	40	36	40	36	33
6	66	53	45	39	62	51	43	37	46	39	35	41	36	32	37	32	29
7	61	48	40	34	57	46	38	33	41	35	31	37	32	28	33	29	26
8	57	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23
9	53	40	32	27	50	38	31	26	35	29	25	32	26	23	28	24	21
10	49	37	30	25	47	35	28	24	32	26	22	29	24	21	26	22	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16967	16967	16967
5°	16995	16172	16058
10°	16856	15435	15129
15°	16609	14694	14152
20°	16276	13886	13227
25°	15944	13042	12304
30°	15524	12249	11334
35°	15131	11412	10383
40°	14643	10587	9482
45°	14159	9769	8599
50°	13628	8936	7684
55°	13073	8044	6817
60°	12447	7080	5915
65°	11760	6100	4967
70°	10892	5029	4010
75°	9683	3875	3097
80°	8231	2635	1993
85°	5975	1226	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14159 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.5
10°-20°	283.8	7.1
20°-30°	417.1	10.4
30°-40°	484.5	12.0
40°-50°	483.9	12.0
50°-60°	421.9	10.5
60°-70°	311.9	7.8
70°-80°	176.5	4.4
80°-90°	47.8	1.2
90°-100°	75.3	1.9
100°-110°	254.4	6.3
110°-120°	267.4	6.6
120°-130°	219.9	5.5
130°-140°	176.7	4.4
140°-150°	133.5	3.3
150°-160°	93.9	2.3
160°-170°	55.3	1.4
170°-180°	18.0	0.4
0°-30°	801.8	19.9
0°-40°	1286.3	32.0
0°-60°	2192.1	54.5
0°-90°	2728.2	67.8
90°-120°	597.1	14.8
90°-150°	1127.2	28.0
90°-180°	1294.0	32.2
0°-180°	4022.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1072	1072	1072	1072	1072	
5°	1072	1068	1056	1065	1063	102
15°	1020	1014	1001	1005	1000	287
25°	924	915	898	900	898	425
35°	797	786	770	764	759	497
45°	648	641	626	614	610	500
55°	491	484	472	460	454	439
65°	331	325	314	305	300	327
75°	173	171	166	160	162	185
85°	42	41	40	37	36	47
90°	0	5	12	12	12	3
95°	12	31	140	53	41	13
105°	44	66	264	473	402	46
115°	77	97	221	457	529	76
125°	107	127	213	370	430	95
135°	126	150	210	311	356	97
145°	144	165	209	260	284	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°	1071.9	1071.9	1071.9	1071.9	1071.9
2.5°	1078.1	1072.9	1061.6	1071.9	1069.8
5°	1071.9	1067.7	1056.4	1064.7	1062.6
7.5°	1064.7	1058.5	1047.1	1055.4	1053.3
10°	1053.3	1046.1	1033.7	1042.0	1038.9
12.5°	1037.9	1031.7	1019.3	1024.5	1022.4
15°	1020.3	1014.2	1000.8	1004.9	999.7
17.5°	998.7	992.5	979.1	984.3	979.1
20°	975.0	968.8	954.4	957.5	953.3
22.5°	951.3	942.0	928.6	928.6	926.5
25°	923.5	915.2	897.7	899.7	897.7
27.5°	892.5	885.3	871.9	868.8	863.7
30°	861.6	853.4	837.9	834.8	830.7
32.5°	828.6	822.5	806.0	799.8	795.7
35°	796.7	786.4	769.9	763.7	758.6
37.5°	760.6	751.3	734.8	727.6	722.5
40°	723.5	715.3	698.8	689.5	685.4
42.5°	687.4	679.2	662.7	652.4	646.2
45°	648.3	641.1	625.6	614.3	610.1
47.5°	610.1	602.9	586.4	575.1	568.9
50°	569.9	564.8	550.4	535.9	530.8
52.5°	530.8	523.6	510.2	498.8	491.6
55°	490.6	484.4	472.0	459.7	454.5
57.5°	450.4	445.2	431.8	419.5	415.3
60°	410.2	406.1	391.6	380.3	377.2
62.5°	371.0	363.8	353.5	343.2	339.1
65°	330.8	324.7	314.3	305.1	299.9
67.5°	289.6	284.5	275.2	268.0	263.8
70°	251.5	247.4	238.1	230.9	226.7
72.5°	212.3	208.2	203.0	195.8	192.7
75°	173.1	171.1	165.9	159.7	161.8
77.5°	138.1	134.0	131.9	128.8	125.7
80°	103.1	102.0	100.0	96.9	94.8
82.5°	70.1	70.1	69.1	64.9	64.9
85°	42.3	41.2	40.2	37.1	36.1
87.5°	18.6	16.5	14.4	11.3	10.3
90°	0.4	4.8	12.1	11.6	11.8
92.5°	5.4	17.0	55.0	25.4	21.8
95°	12.5	30.7	139.9	52.8	40.7
97.5°	18.6	40.5	228.1	106.0	68.2
100°	27.5	49.6	282.0	211.2	127.8
102.5°	35.7	57.8	283.8	357.0	249.2
105°	43.6	65.7	264.5	472.8	402.3
107.5°	52.1	73.5	246.7	514.8	505.5
110°	60.7	81.6	234.5	508.0	547.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	68.5	89.2	226.7	485.0	546.9
115°	76.8	96.9	221.3	456.8	529.4
117.5°	85.3	104.6	218.5	429.8	503.0
120°	93.2	112.1	216.0	405.8	477.7
122.5°	100.7	119.8	214.6	387.0	451.2
125°	107.1	126.7	212.8	370.0	429.5
127.5°	112.5	133.4	211.7	355.6	409.1
130°	117.1	139.2	211.0	341.0	392.3
132.5°	121.4	144.9	210.6	325.8	374.9
135°	125.7	149.9	210.3	311.0	355.9
137.5°	129.6	154.2	210.3	296.0	337.7
140°	134.2	158.2	209.9	282.8	318.8
142.5°	138.9	161.4	209.9	270.0	299.9
145°	143.5	165.0	209.2	259.7	284.2
147.5°	148.5	167.8	208.1	250.6	270.3
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	16.57	17.62	17.36	18.43	19.42	17.36	18.40	18.14	19.21	20.21
	3H	17.93	18.87	18.73	19.69	20.71	19.00	19.94	19.80	20.76	21.78
	4H	18.34	19.23	19.16	20.06	21.09	19.60	20.48	20.41	21.31	22.34
	6H	18.57	19.39	19.40	20.22	21.27	20.01	20.83	20.84	21.66	22.71
	8H	18.60	19.38	19.44	20.24	21.28	20.12	20.90	20.96	21.76	22.80
	12H	18.60	19.35	19.45	20.19	21.27	20.17	20.92	21.02	21.77	22.84
4H	2H	17.06	17.95	17.89	18.78	19.81	17.71	18.60	18.53	19.43	20.46
	3H	18.60	19.34	19.43	20.20	21.25	19.50	20.25	20.34	21.11	22.16
	4H	19.11	19.79	19.96	20.65	21.72	20.19	20.87	21.04	21.73	22.80
	6H	19.43	20.01	20.29	20.89	21.97	20.70	21.29	21.56	22.17	23.25
	8H	19.49	20.03	20.35	20.91	22.00	20.85	21.39	21.71	22.27	23.36
	12H	19.50	19.99	20.38	20.89	21.98	20.92	21.41	21.80	22.31	23.41
8H	4H	19.30	19.85	20.17	20.73	21.82	20.29	20.84	21.16	21.72	22.81
	6H	19.69	20.15	20.59	21.07	22.16	20.87	21.32	21.77	22.24	23.34
	8H	19.80	20.20	20.70	21.11	22.22	21.06	21.46	21.97	22.38	23.49
	12H	19.84	20.19	20.75	21.10	22.26	21.17	21.52	22.08	22.43	23.59
12H	4H	19.29	19.79	20.18	20.68	21.78	20.27	20.76	21.15	21.66	22.76
	6H	19.71	20.12	20.62	21.03	22.14	20.86	21.27	21.77	22.18	23.29
	8H	19.84	20.19	20.74	21.10	22.26	21.07	21.42	21.98	22.33	23.49