

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: P998354

Luminaire Tested: SA2XXDIP-B290D925UB35-4F0-XX-W2A-D

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998354
REPORT IS A COMBINATION OF REPORTS P984094 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D925UB35-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

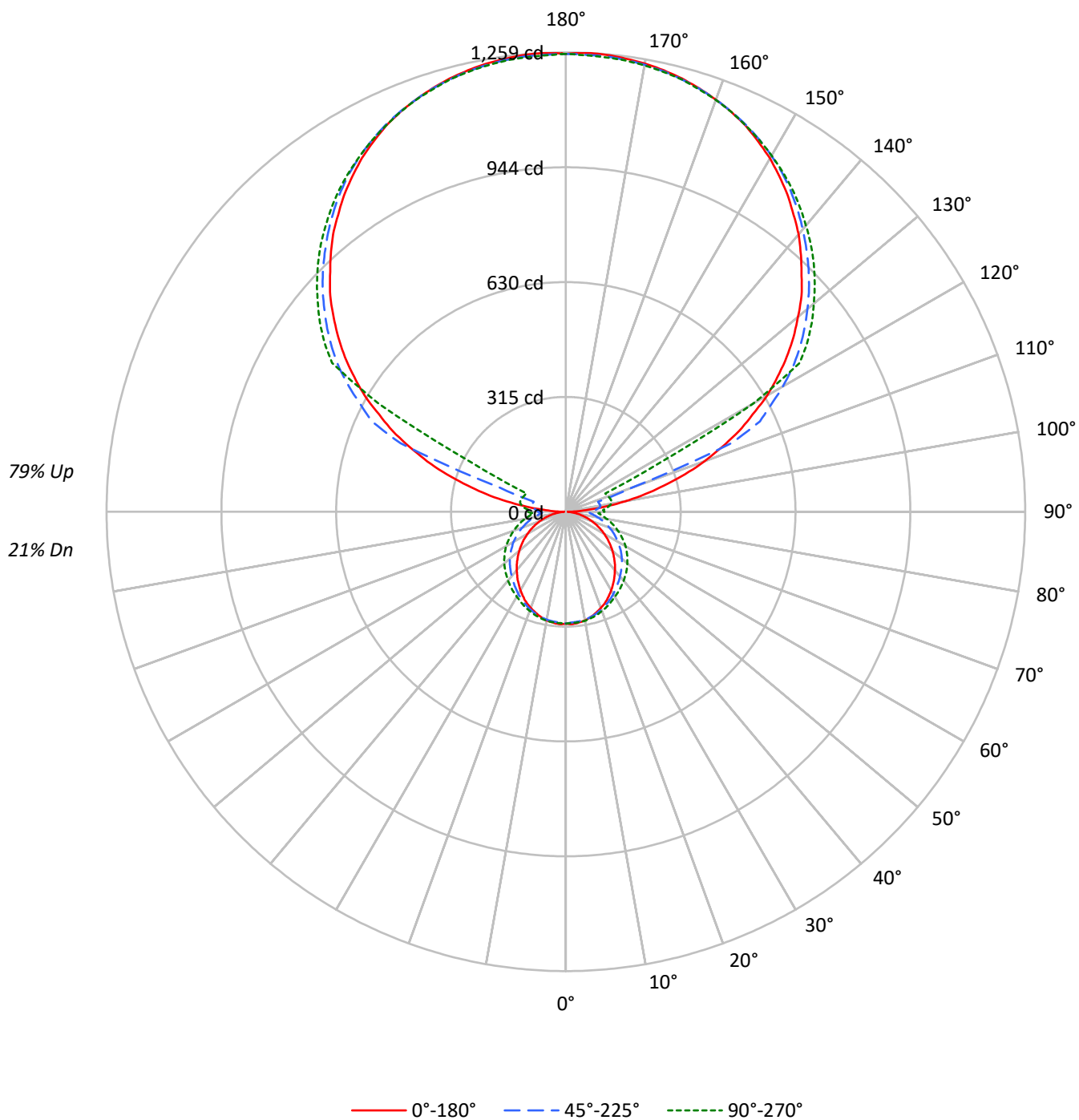
Lumens per Lamp: N/A
Luminaire Lumens: 4850.0 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 41.5
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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30
1	91	86	82	79	80	76	73	70	58	56	54	41	40	38	25	25	24
2	82	75	69	64	73	66	61	57	50	47	44	36	33	31	22	21	20
3	75	66	58	53	66	58	52	47	44	40	37	31	29	26	19	18	16
4	68	58	50	44	60	51	45	40	39	34	31	28	25	22	17	15	14
5	62	51	43	37	55	45	39	34	35	30	26	25	21	19	15	13	12
6	57	46	38	32	50	41	34	29	31	26	23	22	19	16	14	12	10
7	53	41	33	28	47	36	30	25	28	23	20	20	17	14	12	11	9
8	49	37	29	24	43	33	26	22	25	21	17	18	15	13	11	10	8
9	45	34	26	21	40	30	24	19	23	18	15	17	13	11	10	9	7
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4850	4850	4850
5°	4872	4643	4617
10°	4839	4483	4417
15°	4770	4315	4212
20°	4684	4141	4017
25°	4599	3973	3840
30°	4479	3804	3665
35°	4360	3639	3537
40°	4232	3498	3409
45°	4112	3370	3298
50°	3982	3252	3188
55°	3845	3126	3076
60°	3678	2994	2959
65°	3505	2843	2824
70°	3309	2682	2678
75°	3054	2520	2542
80°	2659	2351	2399
85°	2260	2192	2276

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4112 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	0.6
10°-20°	83.3	1.7
20°-30°	126.2	2.6
30°-40°	153.7	3.2
40°-50°	165.4	3.4
50°-60°	160.6	3.3
60°-70°	140.2	2.9
70°-80°	108.0	2.2
80°-90°	74.5	1.5
90°-100°	91.3	1.9
100°-110°	190.7	3.9
110°-120°	433.1	8.9
120°-130°	691.9	14.3
130°-140°	726.3	15.0
140°-150°	670.8	13.8
150°-160°	538.5	11.1
160°-170°	347.0	7.2
170°-180°	119.4	2.5
0°-30°	238.5	4.9
0°-40°	392.2	8.1
0°-60°	718.2	14.8
0°-90°	1040.9	21.5
90°-120°	715.1	14.7
90°-150°	2804.1	57.8
90°-180°	3809.0	78.5
0°-180°	4850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	306	306	306	306	306	
5°	307	306	303	306	306	29
15°	293	294	294	298	298	83
25°	266	270	274	279	280	123
35°	230	237	246	255	258	143
45°	188	200	216	230	234	145
55°	144	160	183	199	205	129
65°	99	120	146	165	170	98
75°	55	80	108	127	133	58
85°	16	44	72	91	97	17
90°	5	41	77	99	106	6
95°	63	54	86	108	112	73
105°	278	318	94	119	128	297
115°	524	544	587	180	119	516
125°	739	751	782	801	807	659
135°	914	928	941	959	961	706
145°	1060	1059	1074	1083	1081	663
155°	1167	1159	1170	1175	1168	538
165°	1229	1224	1227	1233	1227	347
175°	1258	1251	1253	1259	1250	120
180°	1255	1255	1255	1255	1255	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	306.4	306.4	306.4	306.4	306.4
2.5°	308.6	307.3	304.1	306.4	305.5
5°	307.3	305.9	303.3	305.9	305.5
7.5°	305.0	304.1	301.9	305.0	304.6
10°	302.4	301.5	300.2	303.7	303.3
12.5°	297.9	298.4	297.5	301.0	300.6
15°	293.0	293.9	293.9	297.9	297.5
17.5°	286.8	288.6	289.9	293.9	293.9
20°	280.6	282.8	284.6	289.5	289.5
22.5°	274.0	276.6	279.3	284.2	285.1
25°	266.4	269.5	273.5	278.8	280.2
27.5°	257.5	262.4	266.9	273.5	274.4
30°	248.6	254.4	260.2	267.3	268.6
32.5°	238.9	245.5	252.6	261.1	263.7
35°	229.6	237.1	245.5	255.3	258.4
37.5°	219.3	227.8	238.4	249.1	252.2
40°	209.1	218.9	230.9	242.4	246.4
42.5°	199.4	209.1	223.3	236.2	240.2
45°	188.3	200.3	215.8	229.6	234.0
47.5°	177.6	190.5	208.2	222.5	227.3
50°	166.5	180.3	200.3	215.3	220.2
52.5°	155.8	170.5	191.8	207.4	212.7
55°	144.3	160.3	183.4	199.4	205.1
57.5°	133.2	151.0	174.1	191.4	197.1
60°	121.2	140.3	165.6	182.5	188.7
62.5°	110.6	130.5	155.8	174.1	179.8
65°	98.6	120.3	146.5	164.7	170.5
67.5°	87.9	110.6	137.2	155.4	161.6
70°	76.4	99.5	127.0	146.1	151.4
72.5°	65.7	89.7	117.7	136.3	143.0
75°	54.6	79.5	107.9	127.0	132.8
77.5°	44.0	69.7	98.6	117.7	123.9
80°	33.3	60.4	89.2	107.9	114.1
82.5°	24.4	51.1	80.4	99.0	104.8
85°	16.0	43.5	71.9	90.6	96.8
87.5°	9.8	36.4	64.8	83.0	88.8
90°	5.3	41.1	76.8	99.1	106.2
92.5°	26.7	46.6	76.4	95.5	101.8
95°	62.6	53.5	86.5	107.9	112.3
97.5°	109.3	54.0	94.3	113.4	119.6
100°	163.8	55.8	96.2	119.8	126.5
102.5°	223.3	236.1	94.9	120.9	128.5
105°	278.2	318.4	93.6	119.1	127.6
107.5°	342.7	376.1	92.3	117.4	125.9
110°	404.0	432.0	191.3	114.7	123.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	462.2	485.6	490.6	113.4	121.0
115°	523.9	544.2	586.8	179.8	119.3
117.5°	577.0	598.7	632.8	516.3	282.8
120°	636.9	652.3	686.5	709.8	592.1
122.5°	687.7	702.8	737.3	754.8	759.7
125°	739.1	750.9	782.4	800.7	807.4
127.5°	786.3	798.5	824.2	844.3	849.2
130°	830.8	844.8	864.2	884.8	887.5
132.5°	876.2	887.5	904.2	922.6	925.3
135°	913.8	928.4	941.0	959.4	961.2
137.5°	953.8	964.7	976.1	993.6	993.9
140°	992.8	999.7	1010.6	1025.9	1024.0
142.5°	1025.5	1031.5	1043.3	1055.9	1053.5
145°	1059.6	1058.7	1074.2	1083.2	1080.9
147.5°	1089.6	1086.9	1102.3	1107.3	1105.0
150°	1118.7	1112.3	1126.8	1132.3	1127.7
152.5°	1143.2	1135.9	1149.5	1155.0	1148.6
155°	1166.8	1158.6	1169.5	1175.0	1167.7
157.5°	1185.8	1178.6	1186.8	1193.1	1185.8
160°	1202.2	1196.7	1202.2	1207.6	1201.3
162.5°	1216.7	1211.3	1215.8	1222.2	1214.0
165°	1229.4	1224.0	1226.7	1233.1	1226.7
167.5°	1239.4	1234.0	1236.7	1243.1	1234.9
170°	1247.6	1242.1	1244.0	1250.3	1242.1
172.5°	1253.0	1247.6	1249.4	1255.8	1247.6
175°	1257.6	1251.2	1253.0	1259.4	1250.3
177.5°	1259.4	1253.0	1253.9	1260.3	1252.1
180°	1254.9	1254.9	1254.9	1254.9	1254.9

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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	7.18	7.85	8.35	9.01	10.63	10.26	10.93	11.42	12.08	13.71
	3H	8.63	9.24	9.80	10.40	12.04	12.84	13.44	14.01	14.60	16.24
	4H	9.10	9.67	10.28	10.83	12.48	14.08	14.66	15.26	15.82	17.46
	6H	9.37	9.90	10.56	11.07	12.72	15.37	15.90	16.55	17.06	18.72
	8H	9.43	9.93	10.62	11.11	12.76	16.02	16.53	17.21	17.70	19.35
	12H	9.44	9.92	10.63	11.09	12.76	16.74	17.22	17.93	18.39	20.06
4H	2H	8.21	8.79	9.40	9.95	11.59	10.57	11.14	11.75	12.30	13.95
	3H	9.91	10.39	11.10	11.58	13.23	13.34	13.83	14.53	15.01	16.67
	4H	10.52	10.97	11.71	12.14	13.82	14.75	15.20	15.95	16.37	18.05
	6H	10.93	11.31	12.12	12.51	14.17	16.21	16.60	17.41	17.79	19.45
	8H	11.03	11.39	12.22	12.58	14.26	16.96	17.32	18.16	18.51	20.19
	12H	11.06	11.39	12.27	12.59	14.27	17.78	18.11	18.99	19.31	20.99
8H	4H	11.30	11.66	12.49	12.84	14.52	14.88	15.24	16.08	16.43	18.11
	6H	11.92	12.22	13.13	13.45	15.13	16.50	16.80	17.72	18.03	19.71
	8H	12.14	12.40	13.36	13.61	15.30	17.39	17.65	18.61	18.86	20.55
	12H	12.27	12.50	13.49	13.70	15.43	18.38	18.61	19.60	19.81	21.54
12H	4H	11.48	11.81	12.69	13.01	14.69	14.85	15.18	16.06	16.37	18.06
	6H	12.25	12.52	13.47	13.72	15.42	16.53	16.79	17.74	17.99	19.69
	8H	12.55	12.78	13.77	13.98	15.71	17.45	17.68	18.67	18.88	20.61