

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: P998350

Luminaire Tested: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998350
REPORT IS A COMBINATION OF REPORTS P984090 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

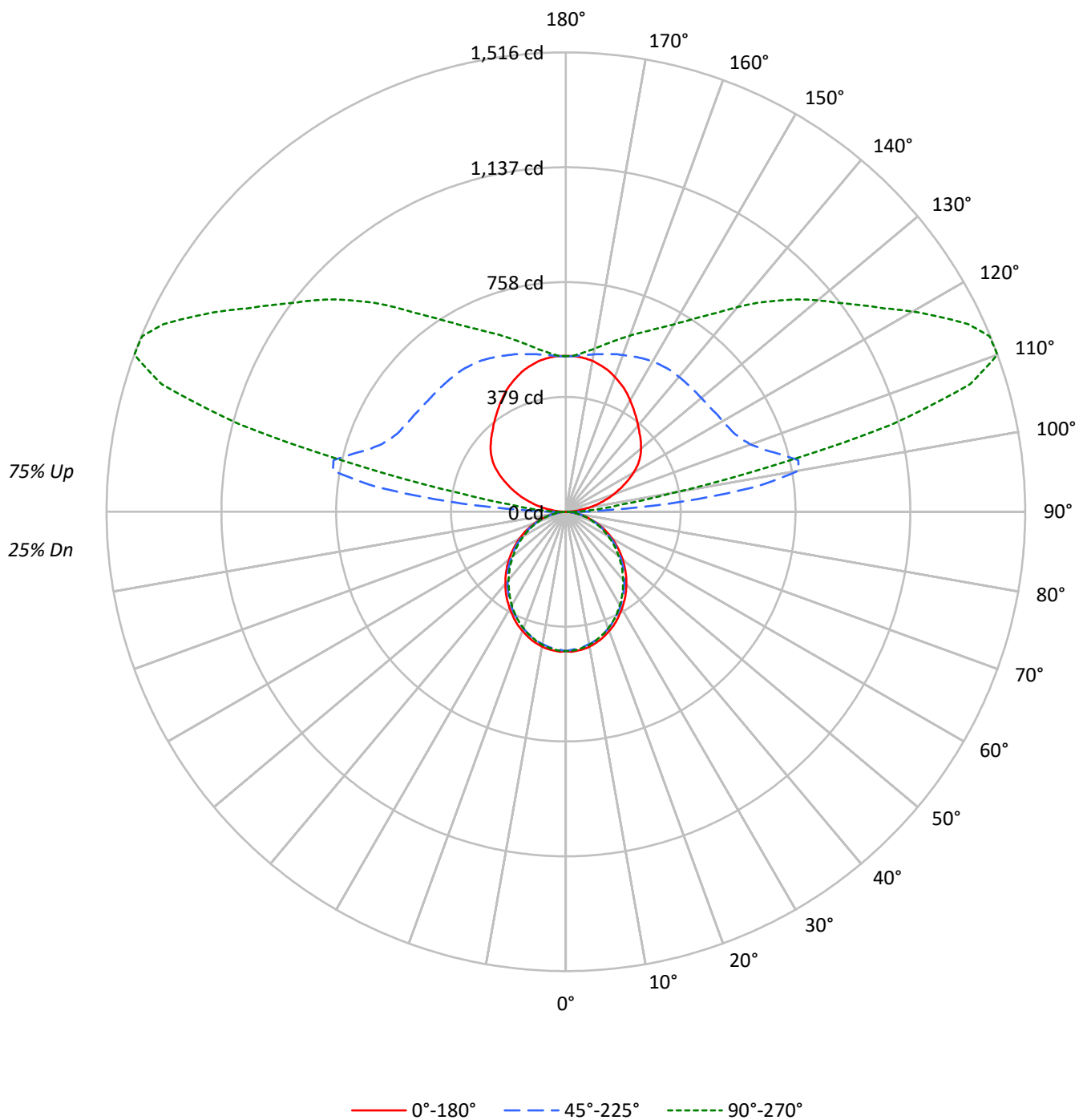
Lumens per Lamp: N/A
Luminaire Lumens: 4755.1 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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

TEST NUMBER: P998350

CATALOG NUMBER: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4

Luminous Intensity Polar Plot



TEST NUMBER: P998350

CATALOG NUMBER: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4

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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33
1	92	88	84	81	82	78	75	72	61	58	57	44	43	42	29	28	28
2	84	77	71	66	74	68	64	59	53	50	47	39	37	35	25	24	23
3	76	67	60	55	68	60	54	50	47	43	39	34	32	29	23	21	20
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	20	18	17
5	64	53	45	39	57	47	41	36	37	32	29	27	24	22	18	16	15
6	59	47	39	34	52	42	36	31	33	28	25	24	21	19	16	14	13
7	54	42	35	30	48	38	32	27	30	25	22	22	19	17	15	13	12
8	50	38	31	26	45	35	28	24	27	22	19	20	17	15	14	12	10
9	47	35	28	23	41	31	25	21	25	20	17	19	15	13	13	11	9
10	43	32	25	20	39	29	23	19	23	18	15	17	14	12	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7280	7280	7280
5°	7292	6938	6890
10°	7232	6622	6491
15°	7127	6304	6072
20°	6983	5958	5675
25°	6840	5595	5278
30°	6661	5255	4863
35°	6491	4896	4455
40°	6282	4542	4069
45°	6074	4191	3690
50°	5847	3833	3296
55°	5609	3451	2925
60°	5341	3037	2537
65°	5044	2618	2132
70°	4673	2156	1721
75°	4156	1663	1328
80°	3529	1131	856
85°	2557	524	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6074 cd/sqm

TEST NUMBER: P998350

CATALOG NUMBER: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	0.9
10°-20°	121.8	2.6
20°-30°	179.0	3.8
30°-40°	207.9	4.4
40°-50°	207.6	4.4
50°-60°	181.0	3.8
60°-70°	133.8	2.8
70°-80°	75.7	1.6
80°-90°	23.3	0.5
90°-100°	208.3	4.4
100°-110°	704.1	14.8
110°-120°	740.1	15.6
120°-130°	608.6	12.8
130°-140°	489.0	10.3
140°-150°	369.4	7.8
150°-160°	259.7	5.5
160°-170°	152.9	3.2
170°-180°	49.7	1.0
0°-30°	344.0	7.2
0°-40°	551.9	11.6
0°-60°	940.5	19.8
0°-90°	1173.3	24.7
90°-120°	1652.4	34.8
90°-150°	3119.5	65.6
90°-180°	3582.0	75.3
0°-180°	4755.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	460	458	453	457	456	44
15°	438	435	429	431	429	123
25°	396	393	385	386	385	182
35°	342	337	330	328	326	213
45°	278	275	268	264	262	215
55°	210	208	202	197	195	188
65°	142	139	135	131	129	140
75°	74	73	71	68	69	79
85°	18	18	17	16	16	20
90°	1	13	34	32	33	3
95°	35	85	387	146	113	36
105°	120	182	732	1309	1113	128
115°	212	268	612	1264	1465	211
125°	296	351	589	1024	1188	263
135°	348	415	582	861	985	269
145°	397	456	579	719	786	249
155°	452	488	562	636	661	208
165°	492	507	538	571	580	139
175°	513	513	518	524	523	49
180°	514	514	514	514	514	

TEST NUMBER: P998350

CATALOG NUMBER: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.9	459.9	459.9	459.9	459.9
2.5°	462.5	460.3	455.5	459.9	459.0
5°	459.9	458.1	453.2	456.8	455.9
7.5°	456.8	454.1	449.3	452.8	451.9
10°	451.9	448.8	443.5	447.1	445.7
12.5°	445.3	442.6	437.3	439.5	438.7
15°	437.8	435.1	429.4	431.1	428.9
17.5°	428.5	425.8	420.1	422.3	420.1
20°	418.3	415.7	409.5	410.8	409.0
22.5°	408.1	404.2	398.4	398.4	397.5
25°	396.2	392.7	385.1	386.0	385.1
27.5°	382.9	379.8	374.1	372.8	370.6
30°	369.7	366.1	359.5	358.2	356.4
32.5°	355.5	352.9	345.8	343.1	341.4
35°	341.8	337.4	330.3	327.7	325.5
37.5°	326.3	322.4	315.3	312.2	310.0
40°	310.4	306.9	299.8	295.8	294.1
42.5°	294.9	291.4	284.3	279.9	277.3
45°	278.1	275.0	268.4	263.5	261.8
47.5°	261.8	258.7	251.6	246.7	244.1
50°	244.5	242.3	236.1	229.9	227.7
52.5°	227.7	224.6	218.9	214.0	210.9
55°	210.5	207.8	202.5	197.2	195.0
57.5°	193.2	191.0	185.3	180.0	178.2
60°	176.0	174.2	168.0	163.2	161.8
62.5°	159.2	156.1	151.7	147.2	145.5
65°	141.9	139.3	134.9	130.9	128.7
67.5°	124.3	122.0	118.1	115.0	113.2
70°	107.9	106.1	102.1	99.1	97.3
72.5°	91.1	89.3	87.1	84.0	82.7
75°	74.3	73.4	71.2	68.5	69.4
77.5°	59.3	57.5	56.6	55.3	53.9
80°	44.2	43.8	42.9	41.6	40.7
82.5°	30.1	30.1	29.6	27.9	27.9
85°	18.1	17.7	17.2	15.9	15.5
87.5°	8.0	7.1	6.2	4.9	4.4
90°	1.0	13.4	33.6	32.1	32.6
92.5°	14.8	47.0	152.1	70.2	60.3
95°	34.6	84.9	387.3	146.2	112.6
97.5°	51.4	112.2	631.3	293.5	188.7
100°	76.1	137.4	780.5	584.4	353.7
102.5°	98.8	160.0	785.4	988.0	689.6
105°	120.5	181.8	732.1	1308.6	1113.4
107.5°	144.2	203.6	682.7	1424.6	1399.0
110°	168.0	225.8	649.1	1405.9	1515.5

TEST NUMBER: P998350

CATALOG NUMBER: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	189.7	247.0	627.4	1342.2	1513.6
115°	212.4	268.2	612.5	1264.1	1465.1
117.5°	236.1	289.5	604.6	1189.5	1392.0
120°	257.9	310.2	597.7	1122.8	1321.9
122.5°	278.6	331.5	593.8	1071.0	1248.8
125°	296.4	350.8	588.8	1024.0	1188.5
127.5°	311.2	369.0	585.9	984.0	1132.2
130°	324.1	385.3	583.9	943.5	1085.8
132.5°	335.9	401.1	582.9	901.5	1037.4
135°	347.8	415.0	581.9	860.6	985.0
137.5°	358.6	426.8	581.9	819.0	934.6
140°	371.5	437.6	580.9	782.4	882.2
142.5°	384.3	446.6	580.9	747.4	829.9
145°	397.2	456.4	578.9	718.8	786.4
147.5°	411.0	464.4	576.0	693.6	747.9
150°	424.8	472.2	573.0	671.8	714.3
152.5°	438.7	480.2	568.1	653.5	685.6
155°	451.5	487.6	562.2	635.8	660.9
157.5°	462.4	493.5	556.2	619.0	639.2
160°	473.2	499.4	550.3	602.2	618.5
162.5°	484.1	503.8	545.4	586.3	598.7
165°	492.0	506.8	538.4	571.0	579.9
167.5°	498.9	509.8	532.5	557.2	562.2
170°	505.8	511.3	527.6	544.4	546.3
172.5°	509.8	512.8	521.6	533.0	533.5
175°	512.8	513.2	517.7	524.1	522.6
177.5°	514.7	513.7	513.7	517.7	514.7
180°	513.7	513.7	513.7	513.7	513.7

TEST NUMBER: P998350

CATALOG NUMBER: SA2XXDIP-B290D925UB30-4F0-XX-W2A-F4

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	9.13	9.80	10.28	10.94	12.53	9.91	10.58	11.06	11.72	13.31
	3H	10.45	11.05	11.61	12.20	13.80	11.52	12.12	12.68	13.27	14.88
	4H	10.85	11.42	12.01	12.56	14.18	12.10	12.68	13.27	13.82	15.43
	6H	11.06	11.58	12.23	12.73	14.35	12.50	13.02	13.67	14.17	15.79
	8H	11.08	11.58	12.25	12.74	14.36	12.60	13.10	13.78	14.26	15.88
	12H	11.07	11.54	12.24	12.70	14.33	12.64	13.11	13.82	14.27	15.91
4H	2H	9.57	10.14	10.75	11.29	12.90	10.22	10.79	11.39	11.93	13.55
	3H	11.07	11.55	12.25	12.72	14.34	11.98	12.46	13.16	13.63	15.25
	4H	11.57	12.01	12.75	13.17	14.81	12.65	13.09	13.83	14.25	15.89
	6H	11.86	12.24	13.05	13.42	15.05	13.14	13.51	14.32	14.70	16.33
	8H	11.92	12.27	13.10	13.44	15.09	13.28	13.63	14.46	14.80	16.45
	12H	11.91	12.23	13.10	13.41	15.06	13.33	13.65	14.53	14.83	16.49
8H	4H	11.73	12.08	12.91	13.25	14.90	12.72	13.07	13.91	14.25	15.90
	6H	12.11	12.40	13.31	13.61	15.26	13.28	13.57	14.49	14.79	16.43
	8H	12.21	12.46	13.41	13.65	15.32	13.47	13.72	14.68	14.92	16.58
	12H	12.23	12.45	13.44	13.64	15.34	13.56	13.78	14.77	14.97	16.67
12H	4H	11.70	12.02	12.90	13.21	14.86	12.68	13.00	13.88	14.18	15.83
	6H	12.12	12.37	13.33	13.57	15.23	13.27	13.53	14.48	14.72	16.39
	8H	12.23	12.45	13.44	13.64	15.34	13.46	13.68	14.67	14.87	16.57