

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: P997593

Luminaire Tested: SA2XXDP-B290DB50-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997593
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B290DB50-4F0-XX-W2A-F
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

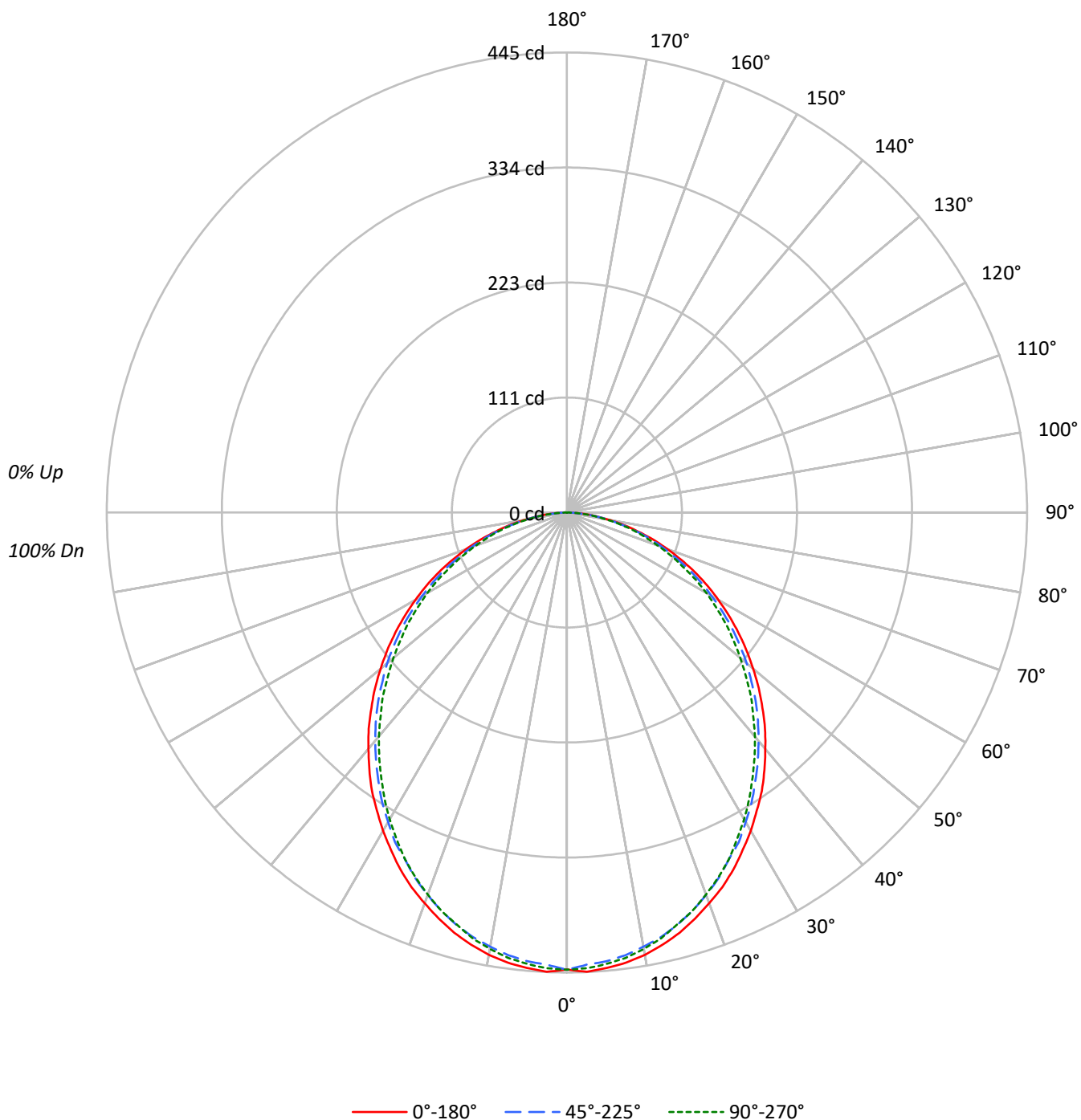
Lumens per Lamp: N/A
Luminaire Lumens: 1125.0 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 13
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: P997593

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-F

Luminous Intensity Polar Plot



TEST NUMBER: P997593

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-F

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7000	7000	7000
5°	7026	6925	6966
10°	6984	6855	6889
15°	6898	6766	6758
20°	6775	6632	6625
25°	6654	6468	6468
30°	6498	6319	6264
35°	6352	6137	6046
40°	6168	5957	5842
45°	5986	5778	5635
50°	5790	5590	5393
55°	5586	5373	5175
60°	5357	5116	4926
65°	5113	4858	4633
70°	4799	4545	4327
75°	4367	4189	4085
80°	3874	3756	3564
85°	3160	3015	2706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5986 cd/sqm

TEST NUMBER: P997593

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	3.7
10°-20°	117.1	10.4
20°-30°	172.1	15.3
30°-40°	199.9	17.8
40°-50°	199.6	17.7
50°-60°	174.1	15.5
60°-70°	128.7	11.4
70°-80°	72.8	6.5
80°-90°	19.2	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	330.8	29.4
0°-40°	530.7	47.2
0°-60°	904.3	80.4
0°-90°	1125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1125.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	442	440	436	439	438	42
15°	421	418	413	415	412	119
25°	381	378	370	371	370	175
35°	329	324	318	315	313	205
45°	267	264	258	253	252	206
55°	202	200	195	190	188	181
65°	136	134	130	126	124	135
75°	71	71	68	66	67	76
85°	17	17	17	15	15	20
90°	0	0	0	0	0	

TEST NUMBER: P997593

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	442.2	442.2	442.2	442.2	442.2
2.5°	444.7	442.6	437.9	442.2	441.3
5°	442.2	440.5	435.8	439.2	438.4
7.5°	439.2	436.7	432.0	435.4	434.5
10°	434.5	431.6	426.5	429.9	428.6
12.5°	428.2	425.6	420.5	422.6	421.8
15°	420.9	418.4	412.9	414.6	412.4
17.5°	412.0	409.5	403.9	406.0	403.9
20°	402.2	399.7	393.7	395.0	393.3
22.5°	392.4	388.6	383.1	383.1	382.2
25°	381.0	377.6	370.3	371.2	370.3
27.5°	368.2	365.2	359.7	358.4	356.3
30°	355.5	352.1	345.7	344.4	342.7
32.5°	341.8	339.3	332.5	329.9	328.2
35°	328.7	324.4	317.6	315.1	312.9
37.5°	313.8	310.0	303.2	300.2	298.1
40°	298.5	295.1	288.3	284.4	282.7
42.5°	283.6	280.2	273.4	269.1	266.6
45°	267.4	264.5	258.1	253.4	251.7
47.5°	251.7	248.7	241.9	237.3	234.7
50°	235.1	233.0	227.0	221.1	219.0
52.5°	219.0	216.0	210.5	205.8	202.8
55°	202.4	199.8	194.7	189.6	187.5
57.5°	185.8	183.7	178.2	173.0	171.3
60°	169.2	167.5	161.6	156.9	155.6
62.5°	153.1	150.1	145.8	141.6	139.9
65°	136.5	133.9	129.7	125.9	123.7
67.5°	119.5	117.4	113.5	110.5	108.8
70°	103.7	102.0	98.2	95.2	93.5
72.5°	87.6	85.9	83.8	80.8	79.5
75°	71.4	70.6	68.5	65.9	66.8
77.5°	57.0	55.3	54.4	53.1	51.9
80°	42.5	42.1	41.2	40.0	39.1
82.5°	28.9	28.9	28.5	26.8	26.8
85°	17.4	17.0	16.6	15.3	14.9
87.5°	7.7	6.8	6.0	4.7	4.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997593

CATALOG NUMBER: SA2XXDP-B290DB50-4F0-XX-W2A-F

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	18.04	19.65	18.41	19.97	20.28	17.60	19.21	17.96	19.52	19.84
	3H	19.79	21.25	20.17	21.57	21.93	19.30	20.75	19.68	21.08	21.44
	4H	20.44	21.81	20.84	22.16	22.53	19.94	21.31	20.34	21.66	22.04
	6H	20.91	22.18	21.32	22.54	22.93	20.41	21.67	20.82	22.04	22.43
	8H	21.05	22.26	21.48	22.65	23.05	20.55	21.76	20.97	22.15	22.55
	12H	21.14	22.30	21.57	22.68	23.11	20.63	21.79	21.06	22.17	22.60
4H	2H	18.60	19.97	19.00	20.32	20.70	18.25	19.62	18.65	19.97	20.34
	3H	20.58	21.72	20.99	22.12	22.52	20.17	21.32	20.58	21.71	22.11
	4H	21.36	22.39	21.79	22.80	23.24	20.93	21.97	21.36	22.38	22.82
	6H	21.95	22.86	22.41	23.30	23.75	21.52	22.42	21.97	22.86	23.32
	8H	22.14	22.99	22.60	23.43	23.90	21.70	22.55	22.16	22.99	23.46
	12H	22.27	23.03	22.75	23.51	23.98	21.82	22.58	22.30	23.06	23.53
8H	4H	21.63	22.48	22.09	22.92	23.38	21.25	22.10	21.71	22.54	23.01
	6H	22.34	23.05	22.84	23.53	24.01	21.96	22.66	22.45	23.15	23.63
	8H	22.60	23.23	23.11	23.74	24.23	22.21	22.84	22.72	23.35	23.83
	12H	22.80	23.36	23.31	23.85	24.41	22.39	22.95	22.90	23.44	24.00
12H	4H	21.65	22.41	22.13	22.89	23.36	21.29	22.05	21.77	22.52	22.99
	6H	22.39	23.02	22.90	23.53	24.01	22.02	22.65	22.53	23.16	23.64
	8H	22.70	23.26	23.21	23.75	24.31	22.32	22.88	22.83	23.37	23.93