

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: P997577

Luminaire Tested: SA2XXDP-B290DB2750-4F0-XX-W2A-F_2700K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997577
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-B290DB2750-4F0-XX-W2A-F_2700K
Description: Define 2 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

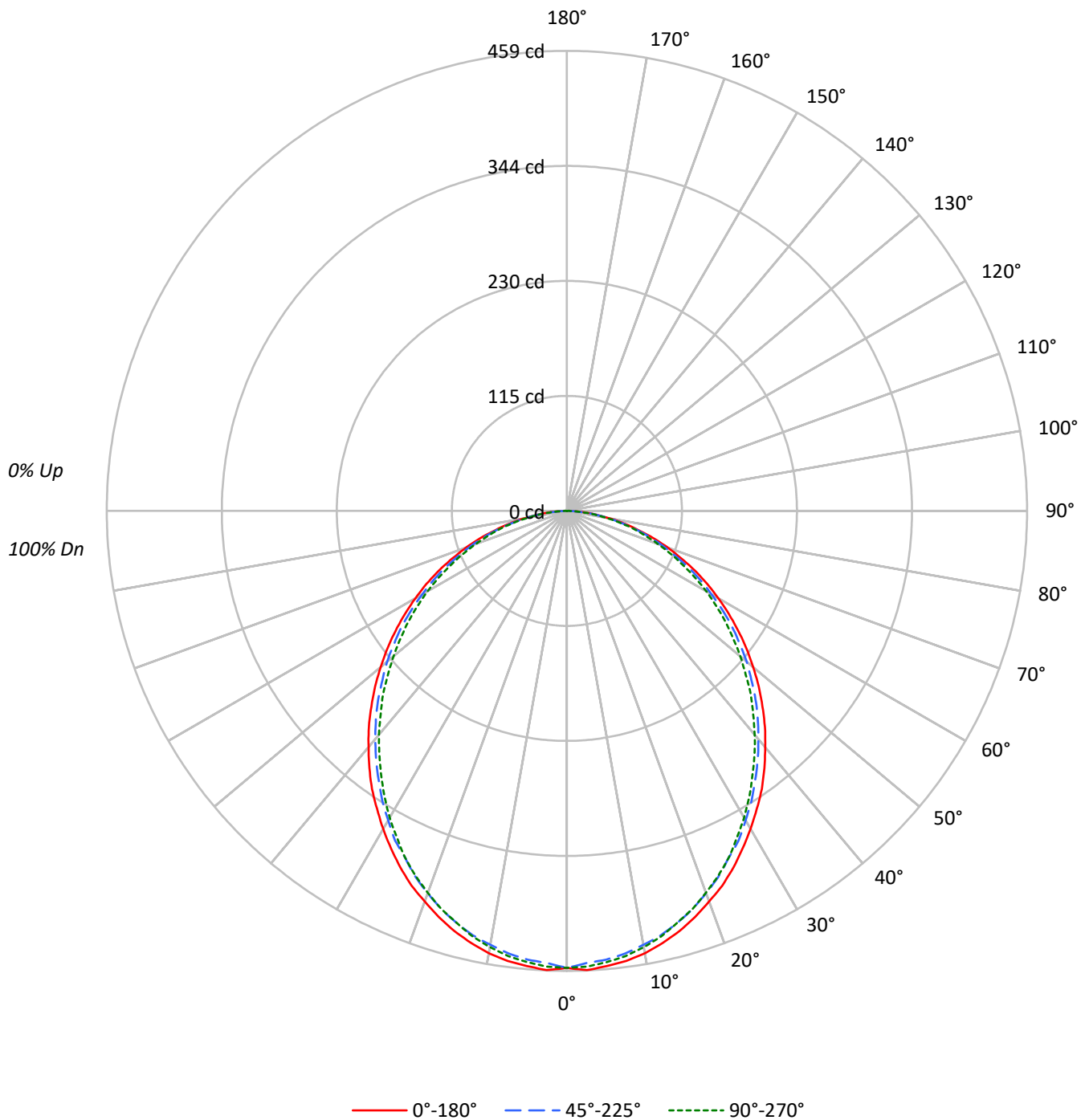
Lumens per Lamp: N/A
Luminaire Lumens: 1160.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 13
Input Voltage (V): 120
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: P997577

CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-F_2700K

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
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°	7217	7217	7217
5°	7244	7141	7182
10°	7203	7068	7103
15°	7112	6976	6970
20°	6986	6839	6831
25°	6861	6670	6670
30°	6699	6514	6459
35°	6549	6329	6236
40°	6360	6141	6023
45°	6174	5957	5809
50°	5969	5765	5561
55°	5760	5542	5335
60°	5524	5274	5081
65°	5270	5008	4779
70°	4952	4688	4466
75°	4507	4318	4208
80°	3993	3874	3674
85°	3269	3106	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 6174 cd/sqm

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CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-F_2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	3.7
10°-20°	120.7	10.4
20°-30°	177.4	15.3
30°-40°	206.1	17.8
40°-50°	205.8	17.7
50°-60°	179.5	15.5
60°-70°	132.7	11.4
70°-80°	75.1	6.5
80°-90°	19.8	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°	341.1	29.4
0°-40°	547.2	47.2
0°-60°	932.5	80.4
0°-90°	1160.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1160.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	456	454	449	453	452	43
15°	434	431	426	427	425	122
25°	393	389	382	383	382	181
35°	339	334	328	325	323	212
45°	276	273	266	261	260	213
55°	209	206	201	196	193	187
65°	141	138	134	130	128	139
75°	74	73	71	68	69	79
85°	18	18	17	16	15	21
90°	0	0	0	0	0	

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CATALOG NUMBER: SA2XXDP-B290DB2750-4F0-XX-W2A-F_2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	455.9	455.9	455.9	455.9	455.9
2.5°	458.6	456.4	451.6	455.9	455.1
5°	455.9	454.2	449.4	452.9	452.0
7.5°	452.9	450.2	445.4	448.9	448.1
10°	448.1	445.0	439.7	443.2	441.9
12.5°	441.5	438.8	433.6	435.8	434.9
15°	434.0	431.4	425.7	427.4	425.3
17.5°	424.8	422.2	416.5	418.7	416.5
20°	414.7	412.1	406.0	407.3	405.5
22.5°	404.7	400.7	395.0	395.0	394.1
25°	392.8	389.3	381.9	382.7	381.9
27.5°	379.7	376.6	370.9	369.6	367.4
30°	366.5	363.0	356.4	355.1	353.4
32.5°	352.5	349.9	342.8	340.2	338.5
35°	338.9	334.5	327.5	324.9	322.7
37.5°	323.5	319.6	312.6	309.5	307.3
40°	307.8	304.3	297.2	293.3	291.5
42.5°	292.4	288.9	281.9	277.5	274.9
45°	275.8	272.7	266.1	261.3	259.5
47.5°	259.5	256.5	249.5	244.6	242.0
50°	242.4	240.2	234.1	228.0	225.8
52.5°	225.8	222.7	217.0	212.2	209.1
55°	208.7	206.1	200.8	195.5	193.3
57.5°	191.6	189.4	183.7	178.4	176.7
60°	174.5	172.7	166.6	161.8	160.5
62.5°	157.8	154.8	150.4	146.0	144.2
65°	140.7	138.1	133.7	129.8	127.6
67.5°	123.2	121.0	117.1	114.0	112.2
70°	107.0	105.2	101.3	98.2	96.5
72.5°	90.3	88.6	86.4	83.3	82.0
75°	73.7	72.8	70.6	68.0	68.8
77.5°	58.7	57.0	56.1	54.8	53.5
80°	43.8	43.4	42.5	41.2	40.3
82.5°	29.8	29.8	29.4	27.6	27.6
85°	18.0	17.5	17.1	15.8	15.3
87.5°	7.9	7.0	6.1	4.8	4.4
90°	0.0	0.0	0.0	0.0	0.0

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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	18.15	19.76	18.51	20.07	20.39	17.70	19.32	18.07	19.63	19.94
	3H	19.90	21.35	20.28	21.68	22.04	19.41	20.86	19.79	21.19	21.55
	4H	20.55	21.92	20.94	22.26	22.64	20.05	21.42	20.45	21.77	22.14
	6H	21.01	22.28	21.43	22.65	23.04	20.51	21.78	20.92	22.15	22.54
	8H	21.16	22.37	21.58	22.76	23.16	20.65	21.87	21.08	22.25	22.65
	12H	21.25	22.41	21.68	22.79	23.22	20.74	21.90	21.16	22.28	22.71
4H	2H	18.71	20.08	19.11	20.43	20.80	18.36	19.73	18.75	20.07	20.45
	3H	20.69	21.83	21.09	22.23	22.63	20.28	21.42	20.69	21.82	22.22
	4H	21.46	22.50	21.89	22.91	23.35	21.04	22.07	21.47	22.49	22.92
	6H	22.06	22.96	22.51	23.40	23.86	21.63	22.53	22.08	22.97	23.43
	8H	22.25	23.09	22.71	23.54	24.00	21.81	22.66	22.27	23.10	23.56
	12H	22.38	23.14	22.86	23.61	24.08	21.93	22.69	22.41	23.16	23.63
8H	4H	21.74	22.58	22.20	23.02	23.49	21.36	22.21	21.82	22.65	23.12
	6H	22.45	23.15	22.94	23.64	24.12	22.07	22.77	22.56	23.26	23.73
	8H	22.71	23.34	23.22	23.85	24.33	22.32	22.95	22.83	23.45	23.94
	12H	22.91	23.47	23.41	23.96	24.52	22.49	23.05	23.00	23.54	24.10
12H	4H	21.76	22.52	22.24	23.00	23.47	21.40	22.16	21.88	22.63	23.10
	6H	22.49	23.13	23.00	23.63	24.12	22.13	22.76	22.64	23.26	23.75
	8H	22.81	23.37	23.32	23.86	24.42	22.43	22.99	22.94	23.48	24.04