

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: P997705

Luminaire Tested: SA2XXRDP-B290DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXRDP-B290DB27-4F0-XX-W2A-F
Description: Define 2 Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

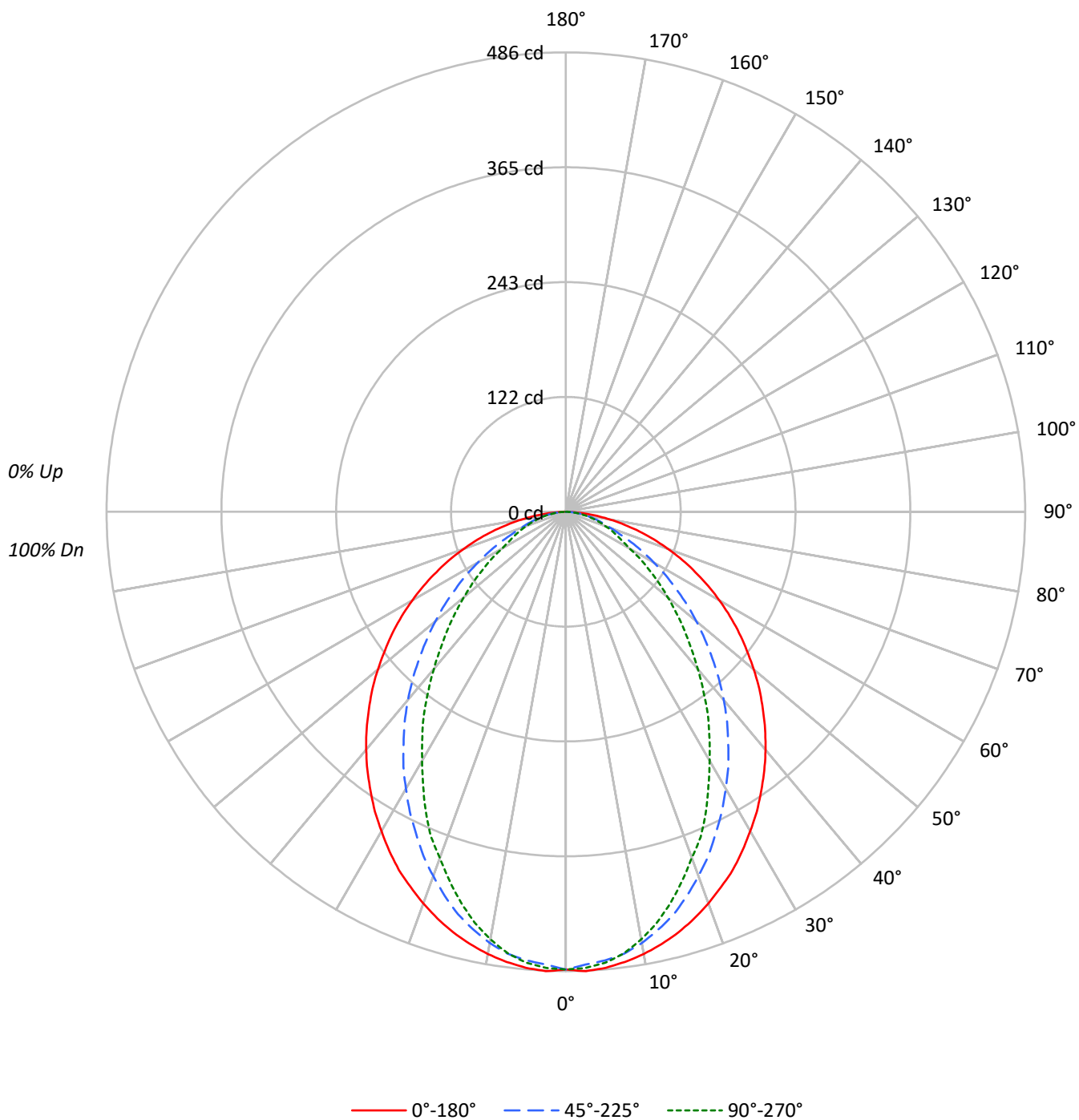
Lumens per Lamp: N/A
Luminaire Lumens: 996.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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

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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7666	7666	7666
5°	7695	7570	7611
10°	7637	7447	7383
15°	7548	7225	7017
20°	7427	6910	6563
25°	7302	6553	6123
30°	7130	6183	5560
35°	6962	5784	5065
40°	6792	5370	4492
45°	6593	4905	3974
50°	6390	4435	3465
55°	6182	3930	2975
60°	5939	3400	2469
65°	5663	2858	2247
70°	5336	2351	2069
75°	4929	2147	1933
80°	4357	1914	1759
85°	3414	1507	1507

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6593 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	4.6
10°-20°	124.6	12.5
20°-30°	174.9	17.6
30°-40°	190.7	19.1
40°-50°	175.3	17.6
50°-60°	137.6	13.8
60°-70°	89.6	9.0
70°-80°	46.1	4.6
80°-90°	11.8	1.2
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°	344.9	34.6
0°-40°	535.6	53.8
0°-60°	848.5	85.2
0°-90°	996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	484	484	484	484	484	
5°	484	482	476	480	479	46
15°	461	456	441	433	428	130
25°	418	404	375	357	351	192
35°	360	338	299	272	262	225
45°	294	265	219	188	178	227
55°	224	190	142	116	108	200
65°	151	116	76	61	60	150
75°	81	50	35	32	32	85
85°	19	10	8	8	8	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	484.3	484.3	484.3	484.3	484.3
2.5°	486.5	484.3	479.5	483.8	483.0
5°	484.3	482.1	476.4	480.3	479.0
7.5°	480.3	477.7	471.6	473.3	471.1
10°	475.1	472.0	463.3	461.9	459.3
12.5°	468.5	464.6	452.7	450.1	445.3
15°	460.6	455.8	440.9	432.6	428.2
17.5°	451.4	444.4	426.0	416.4	409.3
20°	440.9	432.1	410.2	399.3	389.6
22.5°	429.5	419.4	394.0	379.1	372.5
25°	418.1	404.1	375.2	357.2	350.6
27.5°	404.5	389.6	357.6	337.0	326.9
30°	390.1	373.4	338.3	316.0	304.2
32.5°	376.0	355.9	319.9	293.6	282.7
35°	360.3	337.9	299.3	271.7	262.1
37.5°	344.9	320.8	280.1	249.8	238.9
40°	328.7	302.4	259.9	228.8	217.4
42.5°	312.0	284.0	239.7	207.3	196.3
45°	294.5	265.2	219.1	188.0	177.5
47.5°	277.9	246.7	199.4	168.3	158.7
50°	259.5	228.3	180.1	149.9	140.7
52.5°	241.5	208.6	161.7	132.8	124.5
55°	224.0	189.8	142.4	116.1	107.8
57.5°	206.0	170.9	125.3	100.8	93.8
60°	187.6	152.5	107.4	85.0	78.0
62.5°	169.6	134.5	92.0	71.0	67.5
65°	151.2	115.7	76.3	61.4	60.0
67.5°	133.7	98.2	61.4	53.9	52.6
70°	115.3	81.1	50.8	46.5	44.7
72.5°	97.7	65.3	42.5	39.0	38.1
75°	80.6	50.0	35.1	32.0	31.6
77.5°	63.5	35.5	27.6	25.9	25.0
80°	47.8	25.4	21.0	19.3	19.3
82.5°	33.3	17.1	14.5	13.6	13.6
85°	18.8	9.6	8.3	8.3	8.3
87.5°	7.0	3.5	3.5	3.1	3.1
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	18.31	19.83	18.68	20.15	20.46	14.27	15.79	14.64	16.11	16.42
	3H	20.08	21.44	20.45	21.77	22.13	15.54	16.90	15.92	17.23	17.59
	4H	20.74	22.02	21.14	22.37	22.75	16.04	17.32	16.44	17.67	18.05
	6H	21.23	22.41	21.64	22.78	23.17	16.42	17.60	16.83	17.97	18.36
	8H	21.40	22.52	21.82	22.91	23.31	16.55	17.67	16.97	18.06	18.46
	12H	21.50	22.58	21.93	22.96	23.39	16.63	17.70	17.06	18.09	18.52
4H	2H	18.41	19.70	18.81	20.04	20.42	14.97	16.25	15.37	16.60	16.98
	3H	20.35	21.41	20.76	21.81	22.21	16.41	17.47	16.82	17.87	18.28
	4H	21.10	22.06	21.53	22.47	22.91	17.01	17.97	17.44	18.38	18.82
	6H	21.69	22.52	22.15	22.96	23.42	17.50	18.33	17.96	18.77	19.23
	8H	21.90	22.68	22.37	23.13	23.59	17.66	18.44	18.13	18.88	19.35
	12H	22.06	22.75	22.54	23.23	23.70	17.78	18.47	18.26	18.95	19.42
8H	4H	21.12	21.90	21.59	22.34	22.81	17.36	18.14	17.83	18.59	19.05
	6H	21.76	22.40	22.26	22.89	23.37	17.95	18.59	18.45	19.09	19.56
	8H	22.01	22.59	22.52	23.10	23.58	18.17	18.75	18.69	19.26	19.75
	12H	22.21	22.72	22.72	23.22	23.78	18.35	18.86	18.86	19.35	19.92
12H	4H	21.11	21.80	21.59	22.28	22.75	17.41	18.10	17.89	18.58	19.05
	6H	21.74	22.32	22.25	22.83	23.32	18.02	18.59	18.53	19.10	19.59
	8H	22.03	22.53	22.53	23.03	23.59	18.29	18.80	18.80	19.29	19.86