

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057876

Luminaire Tested: S122RDRP-S290D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057876
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D830-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

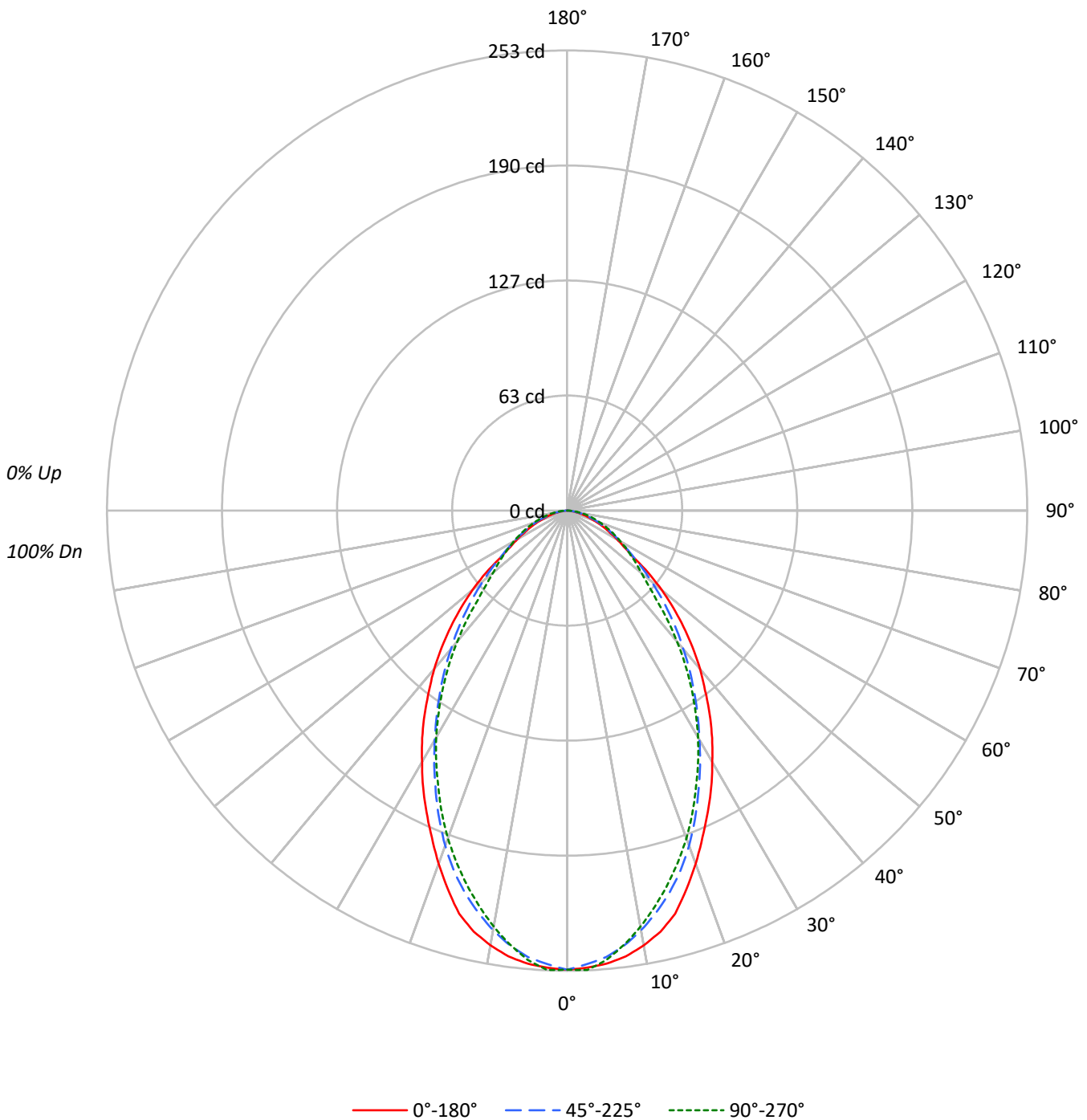
Lumens per Lamp: N/A
Luminaire Lumens: 383.3 lumens
Efficiency: N/A
Efficacy: 30.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4657	4657	4657
5°	4631	4564	4594
10°	4548	4390	4353
15°	4384	4153	4069
20°	4057	3851	3764
25°	3724	3477	3412
30°	3401	3100	3066
35°	3077	2744	2681
40°	2739	2392	2264
45°	2359	2056	1814
50°	1949	1731	1521
55°	1409	1435	1370
60°	1170	1233	1247
65°	1000	1070	1140
70°	825	955	1041
75°	684	806	948
80°	510	638	850
85°	169	339	762

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	6.1
10°-20°	61.4	16.0
20°-30°	79.5	20.7
30°-40°	78.0	20.3
40°-50°	61.4	16.0
50°-60°	40.3	10.5
60°-70°	24.5	6.4
70°-80°	12.2	3.2
80°-90°	2.6	0.7
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°	164.3	42.9
0°-40°	242.3	63.2
0°-60°	343.9	89.7
0°-90°	383.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	383.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	250	250	246	248	248	24
15°	230	226	217	215	213	64
25°	183	177	171	170	168	84
35°	137	129	122	121	119	85
45°	90	85	79	73	70	70
55°	44	46	45	43	43	42
65°	23	23	24	26	26	23
75°	10	10	11	13	13	10
85°	1	1	2	3	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	252.4	252.4	252.4	252.4	252.4
2.5°	251.6	252.0	249.6	252.0	252.8
5°	250.0	250.0	246.4	248.0	248.0
7.5°	247.2	246.8	241.1	241.1	240.7
10°	242.7	241.1	234.3	233.1	232.3
12.5°	237.1	234.3	226.3	224.3	223.0
15°	229.5	226.3	217.4	214.6	213.0
17.5°	218.2	215.0	207.4	204.2	202.6
20°	206.6	201.7	196.1	193.3	191.7
22.5°	194.5	188.9	183.7	181.7	180.0
25°	182.9	176.8	170.8	170.0	167.6
27.5°	171.6	164.4	158.3	157.9	155.9
30°	159.6	151.9	145.5	145.9	143.9
32.5°	148.3	141.1	133.4	133.8	131.4
35°	136.6	129.0	121.8	121.4	119.0
37.5°	124.6	117.4	110.5	108.9	106.5
40°	113.7	106.5	99.3	96.5	94.0
42.5°	102.1	95.7	89.2	84.8	81.6
45°	90.4	84.8	78.8	73.1	69.5
47.5°	79.2	74.8	69.5	62.7	60.3
50°	67.9	64.7	60.3	54.3	53.0
52.5°	56.3	55.1	52.2	48.2	47.8
55°	43.8	46.2	44.6	43.0	42.6
57.5°	37.0	37.4	38.6	38.2	38.2
60°	31.7	31.7	33.4	33.8	33.8
62.5°	26.9	27.3	28.9	29.7	29.7
65°	22.9	23.3	24.5	25.7	26.1
67.5°	18.9	19.7	20.9	22.1	22.5
70°	15.3	16.1	17.7	18.9	19.3
72.5°	12.5	12.9	14.5	15.7	16.1
75°	9.6	10.0	11.3	12.9	13.3
77.5°	6.8	7.6	8.8	10.0	10.9
80°	4.8	5.2	6.0	7.6	8.0
82.5°	2.8	3.2	4.0	5.2	5.6
85°	0.8	1.2	1.6	2.8	3.6
87.5°	0.0	0.0	0.0	0.8	1.6
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	11.47	12.87	11.84	13.18	13.50	11.65	13.05	12.02	13.36	13.67
	3H	12.60	13.85	12.98	14.18	14.54	13.11	14.35	13.49	14.68	15.05
	4H	12.95	14.12	13.36	14.47	14.85	13.65	14.82	14.06	15.17	15.55
	6H	13.14	14.21	13.55	14.58	14.97	14.07	15.14	14.48	15.51	15.90
	8H	13.16	14.18	13.59	14.57	14.97	14.19	15.21	14.62	15.60	16.00
	12H	13.15	14.12	13.58	14.50	14.93	14.27	15.25	14.70	15.63	16.06
4H	2H	11.93	13.09	12.33	13.44	13.82	12.08	13.24	12.48	13.59	13.97
	3H	13.27	14.23	13.68	14.63	15.03	13.75	14.71	14.16	15.11	15.51
	4H	13.71	14.57	14.14	14.99	15.43	14.42	15.27	14.85	15.69	16.13
	6H	13.98	14.72	14.44	15.17	15.63	14.95	15.69	15.41	16.14	16.60
	8H	14.02	14.72	14.49	15.16	15.63	15.11	15.81	15.58	16.25	16.72
	12H	14.02	14.63	14.50	15.11	15.59	15.23	15.85	15.72	16.33	16.80
8H	4H	13.92	14.62	14.39	15.06	15.53	14.56	15.26	15.03	15.70	16.17
	6H	14.27	14.84	14.77	15.33	15.81	15.19	15.76	15.69	16.26	16.73
	8H	14.34	14.85	14.86	15.37	15.86	15.42	15.93	15.94	16.45	16.94
	12H	14.36	14.81	14.87	15.30	15.87	15.61	16.06	16.12	16.55	17.12
12H	4H	13.93	14.55	14.42	15.03	15.50	14.55	15.17	15.04	15.65	16.12
	6H	14.29	14.80	14.81	15.31	15.80	15.19	15.70	15.70	16.21	16.70
	8H	14.41	14.86	14.92	15.35	15.92	15.46	15.91	15.97	16.40	16.97