

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: P1056025

Luminaire Tested: S124R3DRP-S350D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DRP-S350D935-X4F0-XX-UDD-F-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

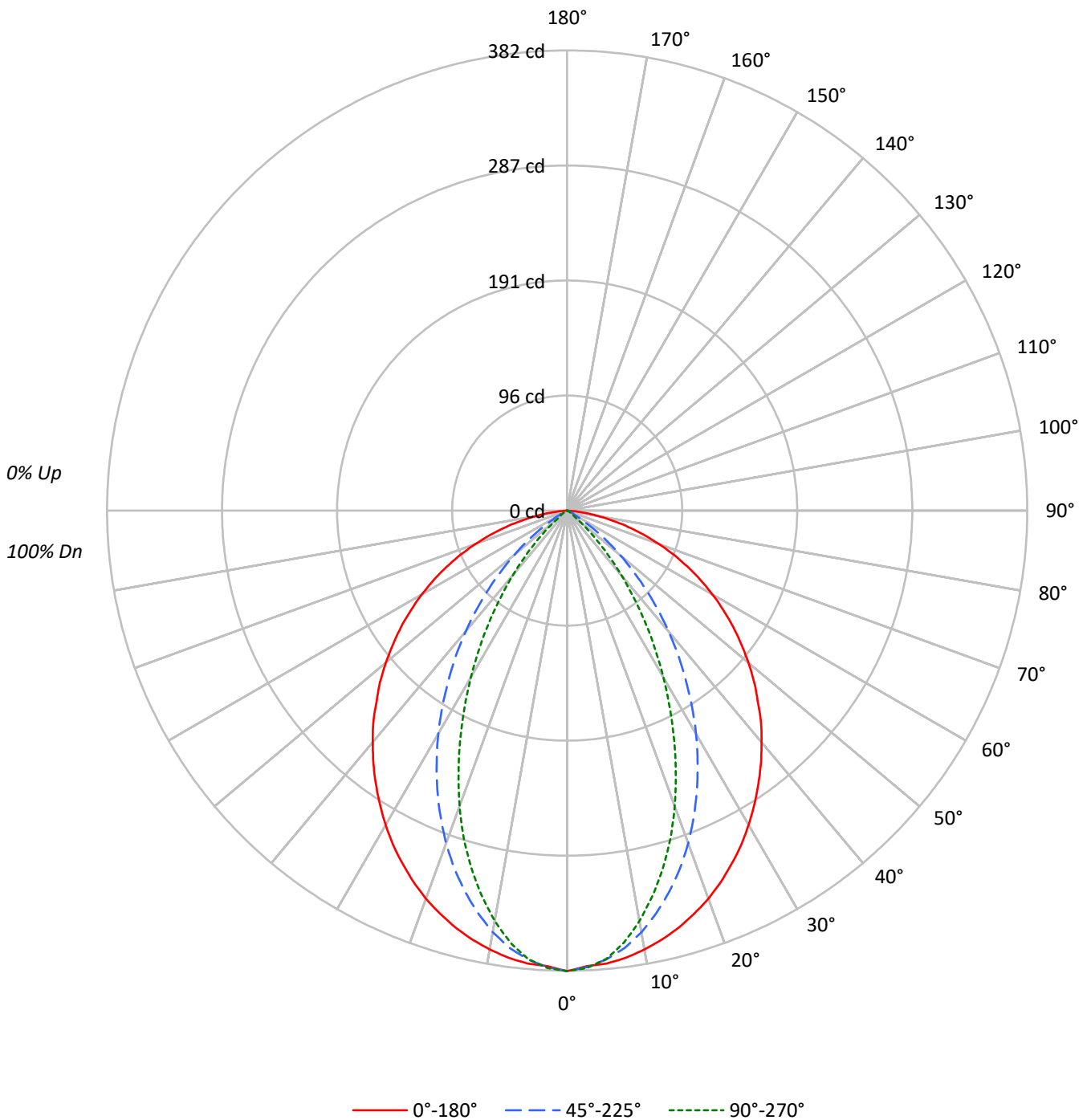
Lumens per Lamp: N/A
Luminaire Lumens: 534.3 lumens
Efficiency: N/A
Efficacy: 42.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3380	3380	3380
5°	3349	3319	3316
10°	3321	3190	3105
15°	3280	2998	2813
20°	3226	2764	2458
25°	3155	2490	2051
30°	3076	2185	1629
35°	2989	1852	1213
40°	2898	1510	809
45°	2797	1153	445
50°	2701	788	124
55°	2594	427	80
60°	2465	133	46
65°	2305	86	23
70°	2084	39	10
75°	1793	14	0
80°	1354	0	0
85°	568	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2797 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.3	6.6
10°-20°	92.6	17.3
20°-30°	119.6	22.4
30°-40°	114.3	21.4
40°-50°	85.5	16.0
50°-60°	50.9	9.5
60°-70°	25.8	4.8
70°-80°	9.0	1.7
80°-90°	1.2	0.2
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°	247.5	46.3
0°-40°	361.8	67.7
0°-60°	498.2	93.3
0°-90°	534.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	534.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	382	382	382	382	382	
5°	377	380	374	372	374	36
15°	358	351	328	312	307	101
25°	323	301	255	222	210	149
35°	277	239	172	128	112	173
45°	224	172	92	49	36	173
55°	168	105	28	6	5	150
65°	110	42	4	2	1	109
75°	52	6	0	0	0	56
85°	6	0	0	0	0	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	382.3	382.3	382.3	382.3	382.3
2.5°	378.5	383.0	379.3	379.6	380.0
5°	377.4	380.4	374.0	372.1	373.6
7.5°	374.4	375.5	366.1	361.3	361.6
10°	369.9	368.8	355.3	347.0	345.9
12.5°	364.6	360.9	342.2	330.2	327.5
15°	358.3	350.8	327.5	312.2	307.3
17.5°	350.8	339.9	311.4	291.2	285.2
20°	342.9	327.9	293.8	268.7	261.2
22.5°	333.5	314.4	274.7	245.1	235.7
25°	323.4	300.9	255.2	221.5	210.2
27.5°	312.9	286.3	234.6	197.5	184.4
30°	301.3	270.9	214.0	173.1	159.6
32.5°	289.3	255.2	192.6	150.7	135.7
35°	276.9	238.7	171.6	127.8	112.4
37.5°	264.2	222.2	151.4	106.1	90.3
40°	251.1	205.4	130.8	85.4	70.1
42.5°	238.3	188.5	111.3	66.0	51.7
45°	223.7	171.6	92.2	49.1	35.6
47.5°	210.6	155.1	73.8	33.4	21.0
50°	196.4	137.5	57.3	19.5	9.0
52.5°	182.1	121.0	42.0	8.6	6.7
55°	168.3	104.6	27.7	6.4	5.2
57.5°	153.7	88.1	15.0	4.9	3.7
60°	139.4	72.0	7.5	3.7	2.6
62.5°	124.8	56.6	6.0	2.2	1.5
65°	110.2	42.3	4.1	1.5	1.1
67.5°	95.6	28.9	2.6	0.7	0.4
70°	80.6	17.6	1.5	0.4	0.4
72.5°	66.3	9.0	0.7	0.4	0.4
75°	52.5	5.6	0.4	0.4	0.0
77.5°	39.0	3.0	0.4	0.4	0.0
80°	26.6	1.1	0.0	0.0	0.0
82.5°	15.4	0.4	0.0	0.0	0.0
85°	5.6	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	14.69	16.02	15.05	16.33	16.64	0.00	0.00	0.00	0.00	0.00
	3H	16.23	17.41	16.61	17.74	18.10	0.00	0.00	0.00	0.00	0.00
	4H	16.82	17.92	17.23	18.27	18.65	0.00	0.00	0.00	0.00	0.00
	6H	17.24	18.25	17.66	18.62	19.01	0.00	0.00	0.00	0.00	0.00
	8H	17.34	18.29	17.77	18.68	19.09	0.00	0.00	0.00	0.00	0.00
	12H	17.36	18.27	17.79	18.65	19.08	0.00	0.00	0.00	0.00	0.00
4H	2H	14.47	15.56	14.87	15.91	16.30	0.00	0.00	0.00	0.00	0.00
	3H	16.03	16.92	16.44	17.33	17.73	0.00	0.00	0.00	0.00	0.00
	4H	16.61	17.41	17.05	17.83	18.27	0.00	0.00	0.00	0.00	0.00
	6H	17.07	17.76	17.54	18.21	18.67	0.00	0.00	0.00	0.00	0.00
	8H	17.19	17.83	17.66	18.28	18.75	0.00	0.00	0.00	0.00	0.00
	12H	17.23	17.80	17.72	18.28	18.76	0.00	0.00	0.00	0.00	0.00
8H	4H	16.48	17.12	16.95	17.56	18.04	0.00	0.00	0.00	0.00	0.00
	6H	16.92	17.44	17.42	17.94	18.42	0.00	0.00	0.00	0.00	0.00
	8H	17.03	17.50	17.56	18.02	18.51	0.00	0.00	0.00	0.00	0.00
	12H	17.08	17.50	17.60	17.99	18.56	0.00	0.00	0.00	0.00	0.00
12H	4H	16.43	17.00	16.92	17.48	17.95	0.00	0.00	0.00	0.00	0.00
	6H	16.86	17.32	17.38	17.84	18.33	0.00	0.00	0.00	0.00	0.00
	8H	16.99	17.40	17.51	17.90	18.47	0.00	0.00	0.00	0.00	0.00