

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: P1060407

Luminaire Tested: S124RDRP-S350D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060407
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D840-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

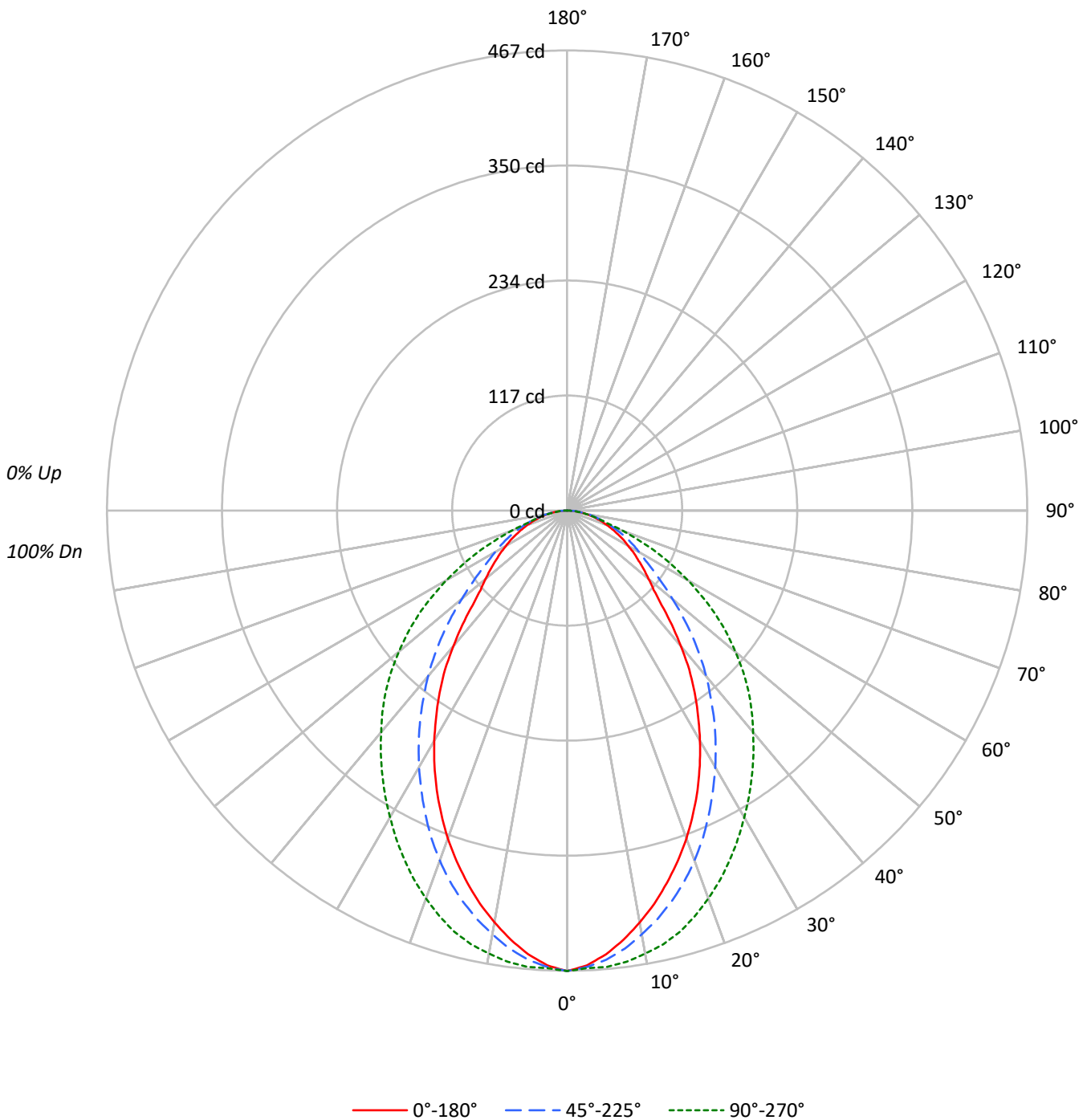
Lumens per Lamp: N/A
Luminaire Lumens: 857.5 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4024	4024	4024
5°	3907	3954	4018
10°	3710	3818	3992
15°	3488	3657	3945
20°	3244	3464	3839
25°	2974	3233	3713
30°	2681	2989	3574
35°	2374	2734	3439
40°	2018	2469	3300
45°	1651	2181	3172
50°	1445	1873	2986
55°	1329	1614	2762
60°	1231	1454	2435
65°	1155	1365	2040
70°	1083	1249	1531
75°	1018	1141	1115
80°	942	1046	942
85°	860	1018	820

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3172 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.2	5.0
10°-20°	116.2	13.6
20°-30°	158.8	18.5
30°-40°	166.9	19.5
40°-50°	144.9	16.9
50°-60°	109.3	12.7
60°-70°	70.8	8.3
70°-80°	36.3	4.2
80°-90°	11.0	1.3
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°	318.2	37.1
0°-40°	485.1	56.6
0°-60°	739.3	86.2
0°-90°	857.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	857.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	452	458	457	461	465	42
15°	391	401	410	429	442	110
25°	313	324	340	366	391	144
35°	226	238	260	295	327	140
45°	136	148	179	224	260	107
55°	88	91	108	153	184	80
65°	57	58	67	81	100	56
75°	31	34	34	35	34	32
85°	9	11	10	10	8	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	467.3	467.3	467.3	467.3	467.3
2.5°	461.9	467.7	463.6	464.4	464.8
5°	452.0	458.2	457.4	461.1	464.8
7.5°	439.2	446.6	448.3	455.7	461.9
10°	424.3	432.6	436.7	448.7	456.5
12.5°	408.6	416.8	424.3	439.6	450.7
15°	391.2	400.7	410.2	428.8	442.5
17.5°	373.0	382.9	394.9	415.2	431.3
20°	354.0	363.9	378.0	399.9	418.9
22.5°	333.7	344.9	359.8	383.3	405.7
25°	313.0	324.2	340.3	366.4	390.8
27.5°	291.5	303.1	320.5	349.4	375.5
30°	269.6	282.0	300.6	331.2	359.4
32.5°	247.3	260.5	280.4	313.0	343.6
35°	225.8	238.2	260.1	294.8	327.1
37.5°	203.5	215.9	239.4	277.1	310.6
40°	179.5	193.1	219.6	258.5	293.6
42.5°	157.1	170.8	199.3	240.7	277.5
45°	135.6	148.5	179.1	223.7	260.5
47.5°	119.1	128.2	158.8	207.2	242.3
50°	107.9	112.1	139.8	189.0	222.9
52.5°	98.0	101.3	122.4	170.8	203.9
55°	88.5	91.0	107.5	152.6	184.0
57.5°	80.2	81.5	94.3	134.4	162.5
60°	71.5	73.2	84.4	115.8	141.4
62.5°	64.5	65.3	75.7	98.0	120.3
65°	56.7	57.9	67.0	81.1	100.1
67.5°	49.6	51.7	57.9	66.2	79.0
70°	43.0	45.9	49.6	53.8	60.8
72.5°	36.8	40.1	42.2	43.8	42.6
75°	30.6	34.3	34.3	34.7	33.5
77.5°	24.8	28.1	27.7	27.3	25.6
80°	19.0	21.9	21.1	20.7	19.0
82.5°	14.1	16.1	15.3	14.9	12.8
85°	8.7	10.8	10.3	9.9	8.3
87.5°	4.1	6.2	5.8	5.4	3.7
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	11.34	12.83	11.71	13.14	13.46	15.08	16.56	15.44	16.88	17.19
	3H	13.01	14.34	13.39	14.67	15.03	16.20	17.54	16.58	17.87	18.23
	4H	13.67	14.92	14.07	15.27	15.65	16.50	17.75	16.90	18.10	18.48
	6H	14.18	15.33	14.59	15.70	16.09	16.70	17.85	17.11	18.22	18.61
	8H	14.36	15.45	14.78	15.84	16.25	16.75	17.85	17.18	18.24	18.64
	12H	14.48	15.53	14.91	15.91	16.34	16.79	17.84	17.22	18.22	18.65
4H	2H	12.13	13.38	12.53	13.73	14.11	15.24	16.49	15.64	16.84	17.22
	3H	14.00	15.04	14.42	15.44	15.84	16.58	17.61	16.99	18.01	18.41
	4H	14.81	15.74	15.24	16.16	16.60	16.99	17.92	17.42	18.34	18.78
	6H	15.45	16.26	15.91	16.70	17.16	17.31	18.12	17.77	18.57	19.03
	8H	15.67	16.43	16.14	16.88	17.34	17.41	18.16	17.87	18.61	19.08
	12H	15.84	16.52	16.32	16.99	17.47	17.48	18.15	17.96	18.63	19.10
8H	4H	15.16	15.91	15.62	16.36	16.83	17.12	17.88	17.59	18.33	18.79
	6H	15.94	16.57	16.44	17.06	17.54	17.54	18.17	18.04	18.66	19.14
	8H	16.26	16.82	16.78	17.33	17.82	17.70	18.26	18.22	18.77	19.26
	12H	16.53	17.02	17.04	17.52	18.08	17.84	18.34	18.35	18.83	19.39
12H	4H	15.19	15.86	15.67	16.34	16.81	17.13	17.80	17.61	18.28	18.75
	6H	16.01	16.57	16.52	17.08	17.57	17.56	18.13	18.08	18.64	19.13
	8H	16.39	16.89	16.90	17.38	17.95	17.77	18.27	18.28	18.76	19.33