

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: P1060407

Luminaire Tested: S124RDR-S350D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S124RDR-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

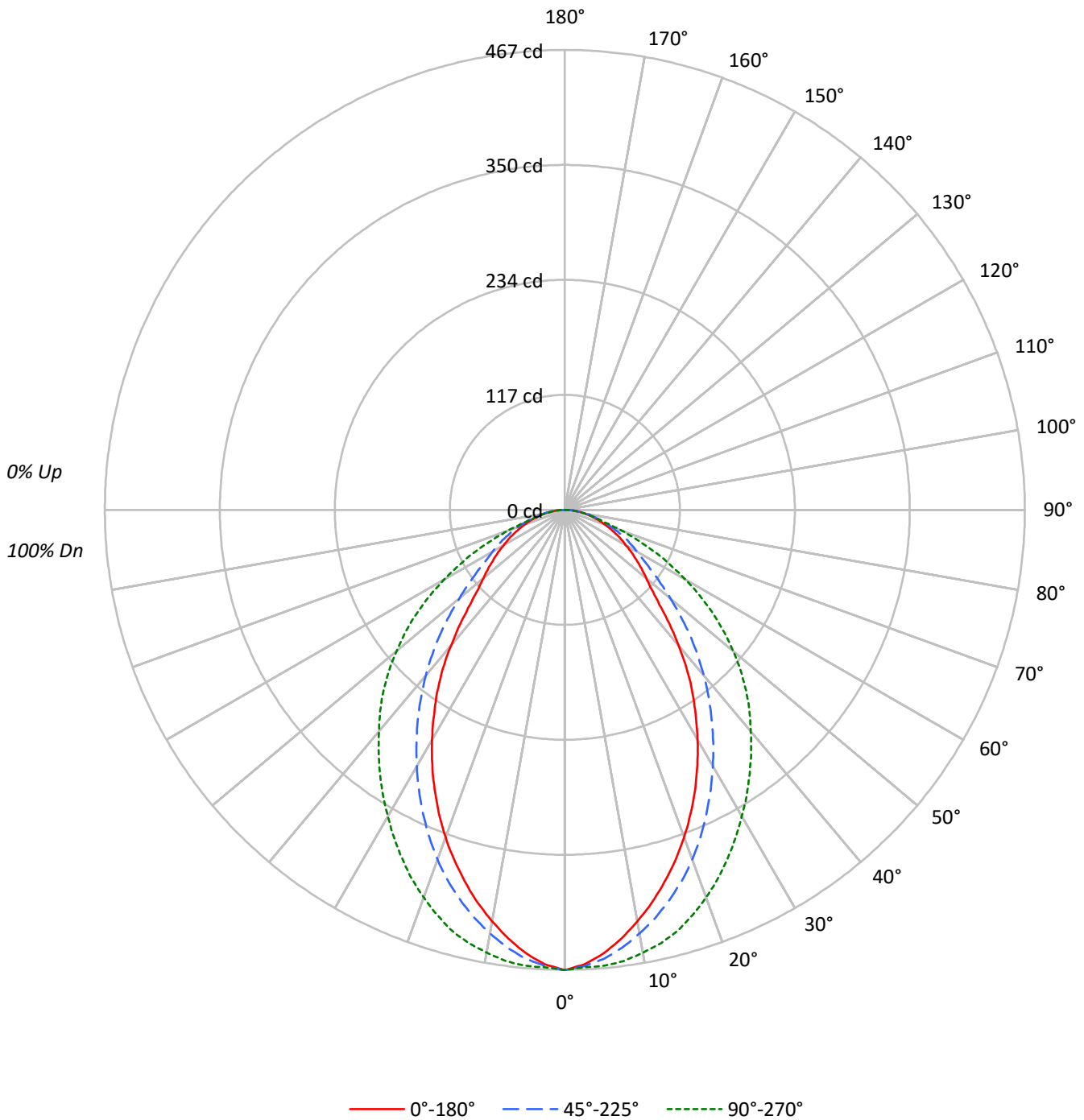
Lumens per Lamp: N/A
Luminaire Lumens: 857.5 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (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										
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	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					100															
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75															
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65					65															
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57					57															
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50					50															
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45															
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40															
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37															
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33															
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31					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

(END OF REPORT)