

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: P1060405

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060405
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
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-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

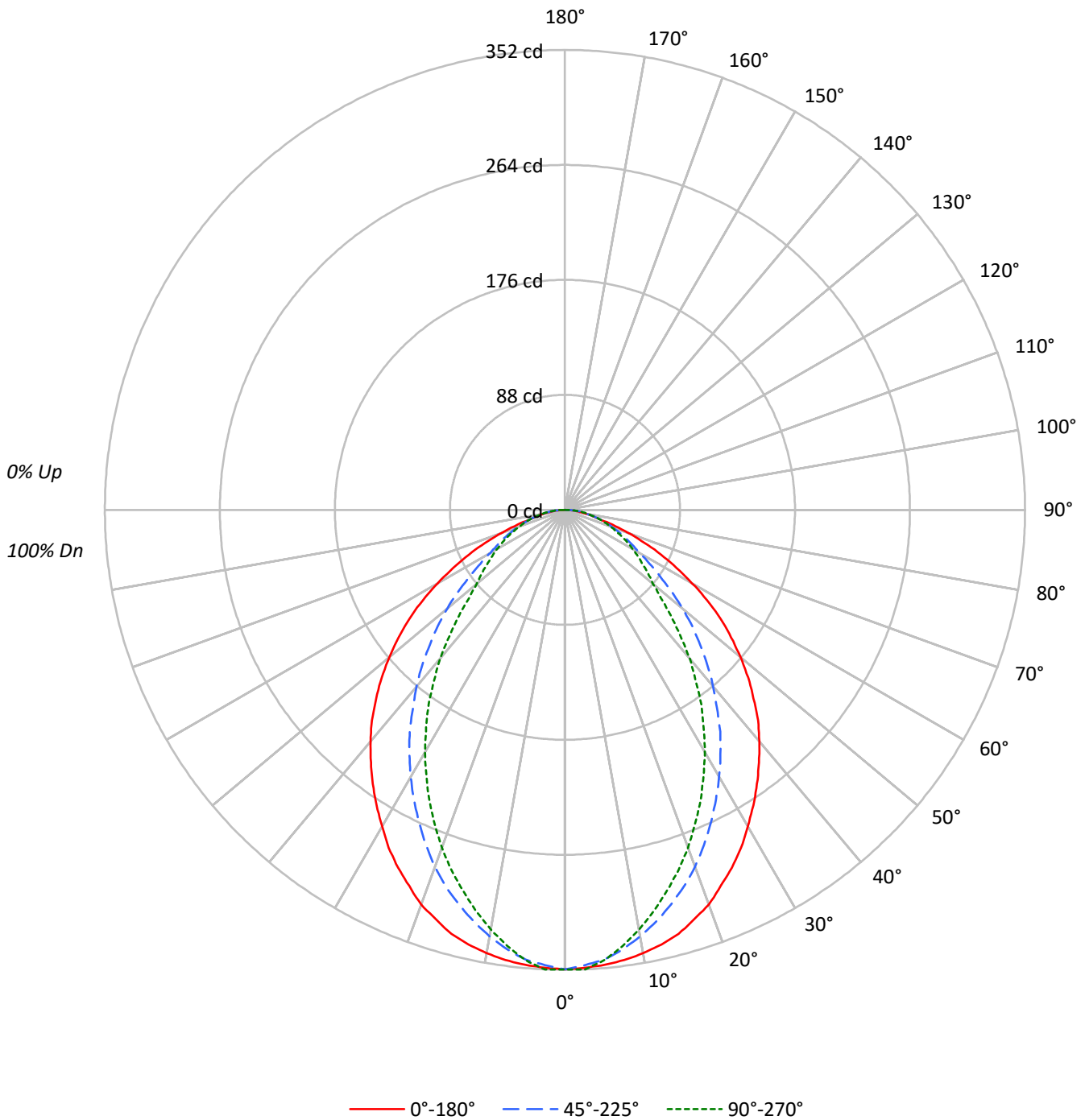
Lumens per Lamp: N/A
Luminaire Lumens: 678.1 lumens
Efficiency: N/A
Efficacy: 54.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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					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	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	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3029	3029	3029
5°	3022	2987	2990
10°	3013	2898	2851
15°	2995	2789	2690
20°	2946	2666	2522
25°	2870	2509	2333
30°	2782	2347	2129
35°	2693	2176	1911
40°	2601	1984	1668
45°	2486	1782	1394
50°	2347	1573	1179
55°	2184	1333	1091
60°	1936	1132	1032
65°	1650	1043	976
70°	1289	967	927
75°	878	895	895
80°	759	838	863
85°	652	820	899

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2486 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.7	4.8
10°-20°	88.9	13.1
20°-30°	123.4	18.2
30°-40°	132.2	19.5
40°-50°	117.1	17.3
50°-60°	88.3	13.0
60°-70°	57.2	8.4
70°-80°	29.3	4.3
80°-90°	9.0	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°	244.9	36.1
0°-40°	377.2	55.6
0°-60°	582.6	85.9
0°-90°	678.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	678.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	352	352	352	352	352	
5°	350	350	346	346	346	33
15°	336	328	313	305	302	95
25°	302	286	264	250	246	139
35°	256	233	207	188	182	160
45°	204	178	146	124	114	157
55°	146	121	89	75	73	129
65°	81	65	51	48	48	80
75°	26	28	27	27	27	31
85°	7	7	8	9	9	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	351.7	351.7	351.7	351.7	351.7
2.5°	350.8	352.1	348.8	351.3	352.1
5°	349.6	350.0	345.5	345.9	345.9
7.5°	347.5	346.7	339.3	337.2	336.8
10°	344.6	342.2	331.4	327.3	326.1
12.5°	340.9	336.4	322.7	317.0	314.5
15°	336.0	328.5	312.8	305.0	301.7
17.5°	328.5	319.0	302.5	292.6	288.9
20°	321.5	308.7	290.9	278.5	275.2
22.5°	311.6	298.0	277.7	264.5	260.3
25°	302.1	286.0	264.1	250.0	245.5
27.5°	291.8	273.6	250.0	235.1	229.4
30°	279.8	260.3	236.0	220.3	214.1
32.5°	268.2	247.5	221.5	204.1	197.5
35°	256.2	233.1	207.0	188.4	181.8
37.5°	243.8	219.4	190.9	172.7	164.1
40°	231.4	205.8	176.5	155.8	148.4
42.5°	218.6	191.7	161.6	140.1	130.6
45°	204.1	177.7	146.3	123.6	114.5
47.5°	190.1	164.1	132.2	107.4	99.2
50°	175.2	149.6	117.4	93.4	88.0
52.5°	160.3	134.7	102.9	82.6	80.2
55°	145.5	121.1	88.8	74.8	72.7
57.5°	128.9	107.0	76.5	67.8	66.1
60°	112.4	91.7	65.7	61.2	59.9
62.5°	96.3	78.5	58.3	54.5	53.7
65°	81.0	65.3	51.2	48.3	47.9
67.5°	66.1	53.7	44.6	43.0	42.2
70°	51.2	43.0	38.4	37.6	36.8
72.5°	38.0	34.7	32.6	32.2	31.8
75°	26.4	27.7	26.9	26.9	26.9
77.5°	21.1	21.5	21.9	22.3	21.9
80°	15.3	16.5	16.9	17.8	17.4
82.5°	10.7	11.6	12.8	13.2	13.6
85°	6.6	7.0	8.3	9.1	9.1
87.5°	2.9	3.3	4.1	5.0	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)