

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: P1060405

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S124RDRP-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

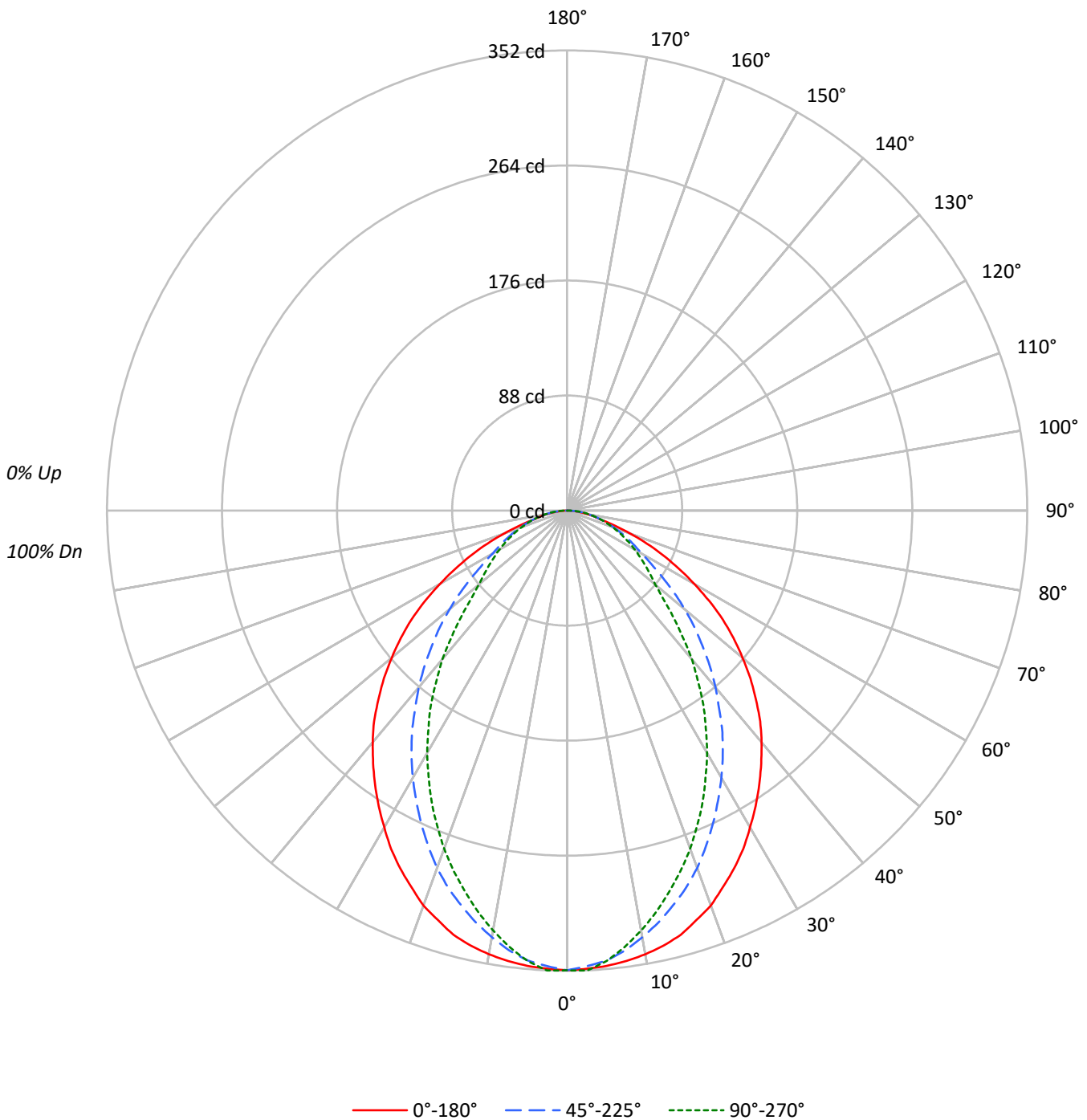
Lumens per Lamp: N/A
Luminaire Lumens: 678.1 lumens
Efficiency: N/A
Efficacy: 54.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (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	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



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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	14.29	15.79	14.65	16.10	16.41	10.86	12.35	11.22	12.67	12.98
	3H	15.49	16.84	15.87	17.16	17.53	12.55	13.90	12.93	14.22	14.59
	4H	15.80	17.06	16.20	17.41	17.79	13.23	14.49	13.63	14.84	15.22
	6H	16.00	17.16	16.41	17.53	17.92	13.78	14.94	14.19	15.31	15.70
	8H	16.06	17.17	16.49	17.56	17.96	14.00	15.10	14.42	15.49	15.89
	12H	16.09	17.15	16.52	17.53	17.96	14.17	15.23	14.60	15.61	16.04
4H	2H	14.43	15.69	14.83	16.04	16.42	11.51	12.77	11.91	13.12	13.50
	3H	15.83	16.88	16.24	17.28	17.68	13.42	14.47	13.84	14.87	15.27
	4H	16.26	17.20	16.69	17.61	18.05	14.23	15.17	14.66	15.58	16.02
	6H	16.58	17.40	17.04	17.84	18.30	14.92	15.73	15.37	16.18	16.64
	8H	16.68	17.44	17.14	17.89	18.36	15.19	15.95	15.65	16.40	16.86
	12H	16.75	17.43	17.23	17.91	18.38	15.42	16.10	15.90	16.58	17.05
8H	4H	16.38	17.15	16.85	17.59	18.06	14.54	15.31	15.01	15.75	16.22
	6H	16.81	17.44	17.30	17.93	18.41	15.37	16.00	15.87	16.50	16.97
	8H	16.96	17.53	17.48	18.04	18.53	15.74	16.30	16.25	16.81	17.30
	12H	17.09	17.59	17.60	18.09	18.65	16.07	16.57	16.58	17.06	17.63
12H	4H	16.39	17.07	16.87	17.55	18.02	14.57	15.25	15.05	15.73	16.20
	6H	16.83	17.40	17.34	17.91	18.40	15.43	16.00	15.95	16.51	17.00
	8H	17.04	17.54	17.55	18.03	18.60	15.86	16.37	16.37	16.86	17.42