

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: P1060392

Luminaire Tested: S124RDRP-S350D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060392
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

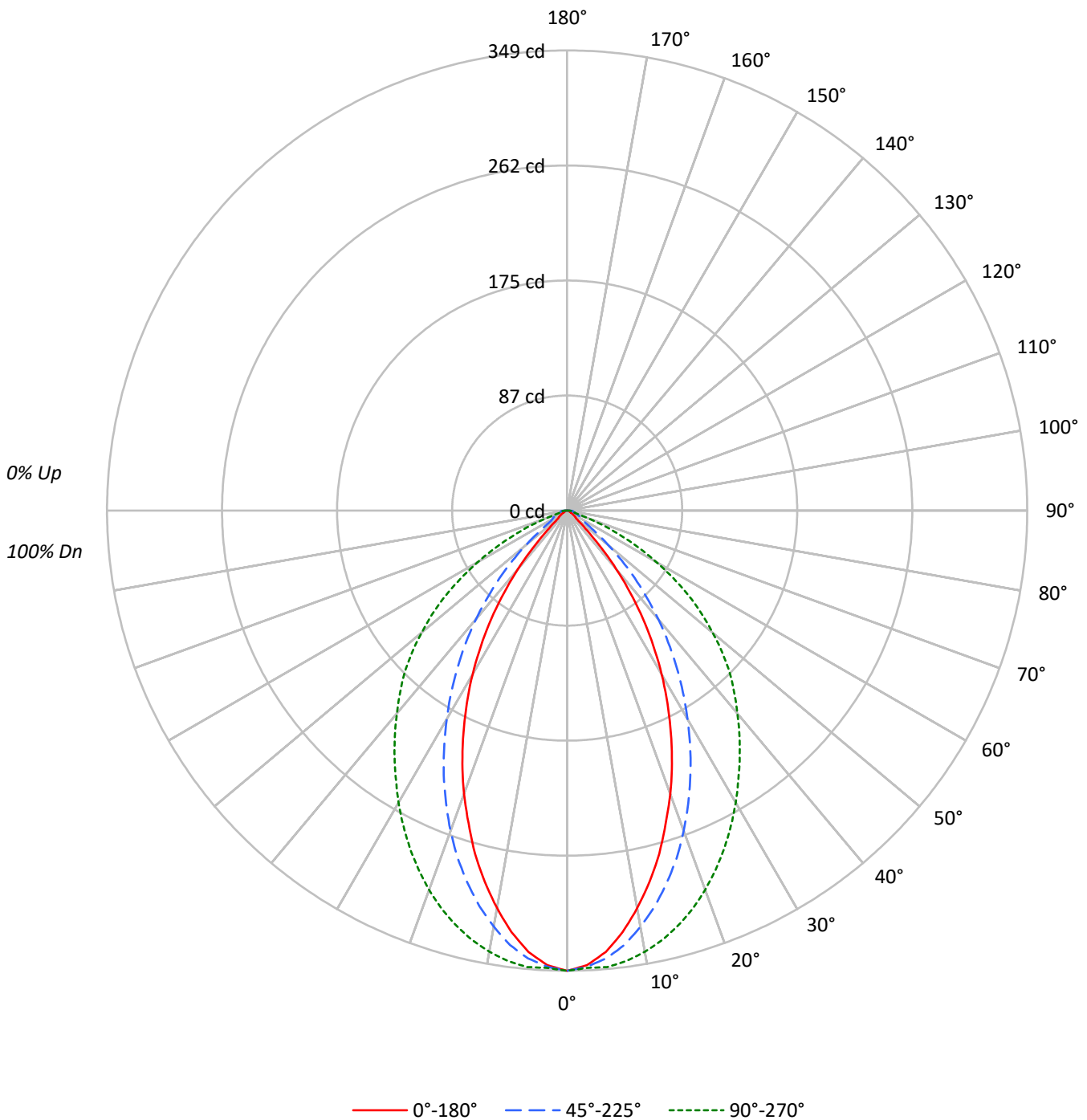
Lumens per Lamp: N/A
Luminaire Lumens: 440.0 lumens
Efficiency: N/A
Efficacy: 35.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3006	3006	3006
5°	2904	2947	3004
10°	2677	2802	2970
15°	2403	2604	2904
20°	2095	2369	2805
25°	1767	2103	2682
30°	1426	1817	2542
35°	1055	1520	2399
40°	654	1212	2257
45°	259	883	2126
50°	115	555	1932
55°	92	290	1692
60°	64	219	1349
65°	41	218	927
70°	40	196	433
75°	53	190	190
80°	79	223	223
85°	158	445	326

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2126 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.0	7.3
10°-20°	82.6	18.8
20°-30°	104.3	23.7
30°-40°	95.7	21.8
40°-50°	65.2	14.8
50°-60°	35.5	8.1
60°-70°	15.4	3.5
70°-80°	5.6	1.3
80°-90°	3.6	0.8
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°	219.0	49.8
0°-40°	314.7	71.5
0°-60°	415.4	94.4
0°-90°	440.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	440.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	349	349	349	349	349	
5°	336	340	341	345	348	31
15°	270	279	292	313	326	75
25°	186	199	221	256	282	85
35°	100	115	145	190	228	62
45°	21	36	72	129	175	20
55°	6	7	19	71	113	5
65°	2	3	11	22	46	2
75°	2	5	6	6	6	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	349.1	349.1	349.1	349.1	349.1
2.5°	345.0	349.1	346.2	347.1	347.1
5°	336.0	340.5	340.9	344.6	347.5
7.5°	322.5	329.0	332.3	339.7	344.6
10°	306.1	313.9	320.4	333.1	339.7
12.5°	288.5	297.5	307.3	324.1	333.5
15°	269.6	279.0	292.1	313.0	325.7
17.5°	248.7	260.2	276.2	301.2	316.7
20°	228.6	240.1	258.5	286.8	306.1
22.5°	207.7	219.6	240.1	271.7	294.6
25°	186.0	199.1	221.3	256.5	282.3
27.5°	164.7	178.6	202.0	240.5	269.2
30°	143.4	157.3	182.7	224.1	255.7
32.5°	121.7	136.0	163.5	206.9	241.7
35°	100.4	115.1	144.6	190.5	228.2
37.5°	78.7	94.2	125.8	174.6	214.7
40°	58.2	73.8	107.8	158.6	200.8
42.5°	38.9	54.5	89.3	143.0	187.7
45°	21.3	35.6	72.5	128.7	174.6
47.5°	11.5	19.7	56.1	114.7	159.8
50°	8.6	10.7	41.4	100.0	144.2
52.5°	7.4	8.2	28.7	84.4	128.7
55°	6.1	6.6	19.3	70.9	112.7
57.5°	4.9	5.3	14.3	57.4	95.5
60°	3.7	4.5	12.7	44.3	78.3
62.5°	2.9	3.7	11.9	32.4	61.9
65°	2.0	2.9	10.7	22.1	45.5
67.5°	2.0	3.3	9.0	14.3	30.7
70°	1.6	4.5	7.8	9.4	17.2
72.5°	1.6	4.9	6.6	6.6	6.6
75°	1.6	5.3	5.7	5.7	5.7
77.5°	1.6	4.9	5.3	4.9	4.9
80°	1.6	4.5	4.5	4.5	4.5
82.5°	1.6	4.1	4.5	4.5	3.7
85°	1.6	3.7	4.5	4.5	3.3
87.5°	1.2	3.7	4.1	4.1	2.5
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	0.00	0.00	0.00	0.00	0.00	12.24	13.52	12.60	13.83	14.14
	3H	0.00	0.00	0.00	0.00	0.00	12.61	13.74	12.99	14.07	14.44
	4H	0.00	0.00	0.00	0.00	0.00	12.59	13.64	12.99	13.99	14.38
	6H	0.00	0.00	0.00	0.00	0.36	12.58	13.54	12.99	13.91	14.31
	8H	0.00	0.13	0.00	0.52	0.92	12.58	13.49	13.01	13.88	14.29
	12H	0.00	0.75	0.31	1.13	1.56	12.59	13.46	13.02	13.85	14.28
4H	2H	0.00	0.00	0.00	0.00	0.27	12.05	13.10	12.45	13.45	13.84
	3H	0.06	0.92	0.48	1.33	1.73	12.47	13.32	12.88	13.73	14.13
	4H	1.34	2.11	1.78	2.53	2.97	12.46	13.23	12.90	13.65	14.09
	6H	2.46	3.12	2.92	3.57	4.03	12.50	13.16	12.97	13.61	14.08
	8H	2.96	3.58	3.43	4.03	4.50	12.53	13.15	13.00	13.60	14.07
	12H	3.51	4.05	3.99	4.53	5.01	12.60	13.14	13.08	13.63	14.10
8H	4H	2.42	3.04	2.89	3.49	3.96	12.37	12.99	12.84	13.44	13.91
	6H	3.96	4.47	4.46	4.96	5.45	12.45	12.96	12.95	13.45	13.93
	8H	4.77	5.22	5.29	5.74	6.23	12.53	12.99	13.06	13.50	14.00
	12H	5.60	6.00	6.11	6.50	7.07	12.70	13.11	13.22	13.60	14.17
12H	4H	2.61	3.16	3.10	3.64	4.12	12.34	12.88	12.82	13.37	13.84
	6H	4.32	4.77	4.84	5.29	5.78	12.42	12.88	12.95	13.39	13.89
	8H	5.33	5.73	5.85	6.23	6.80	12.56	12.96	13.08	13.46	14.03