

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1060797

Luminaire Tested: S124RDR-H350D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060797
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: S124RDR-H350D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

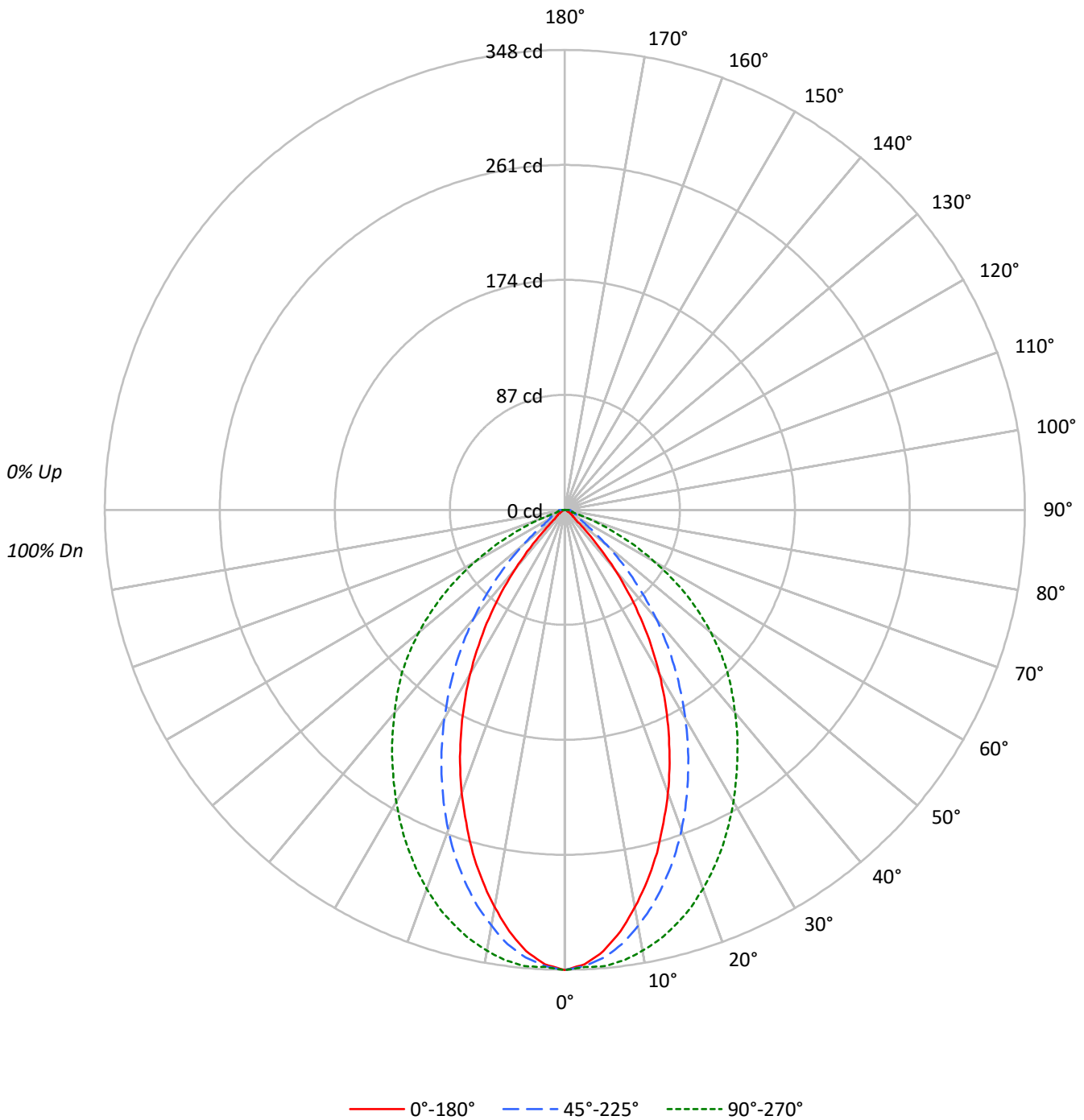
Lumens per Lamp: N/A
Luminaire Lumens: 438.9 lumens
Efficiency: N/A
Efficacy: 37.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	2998	2998	2998
5°	2897	2940	2996
10°	2670	2795	2962
15°	2398	2598	2896
20°	2090	2363	2798
25°	1763	2097	2676
30°	1423	1813	2537
35°	1052	1517	2394
40°	652	1208	2252
45°	259	880	2120
50°	115	553	1928
55°	92	288	1687
60°	64	219	1345
65°	41	216	925
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: 2120 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.9	7.3
10°-20°	82.4	18.8
20°-30°	104.1	23.7
30°-40°	95.5	21.8
40°-50°	65.0	14.8
50°-60°	35.4	8.1
60°-70°	15.3	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°	218.5	49.8
0°-40°	313.9	71.5
0°-60°	414.4	94.4
0°-90°	438.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	438.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	335	340	340	344	347	31
15°	269	278	291	312	325	75
25°	186	199	221	256	282	85
35°	100	115	144	190	228	62
45°	21	36	72	128	174	20
55°	6	6	19	71	112	5
65°	2	3	11	22	45	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°	348.2	348.2	348.2	348.2	348.2
2.5°	344.2	348.2	345.4	346.2	346.2
5°	335.2	339.7	340.1	343.8	346.6
7.5°	321.7	328.2	331.5	338.8	343.8
10°	305.3	313.1	319.6	332.3	338.8
12.5°	287.8	296.7	306.6	323.3	332.7
15°	269.0	278.4	291.4	312.3	324.9
17.5°	248.1	259.6	275.5	300.4	316.0
20°	228.1	239.5	257.9	286.1	305.3
22.5°	207.2	219.1	239.5	271.0	293.9
25°	185.6	198.6	220.7	255.9	281.6
27.5°	164.3	178.2	201.5	239.9	268.5
30°	143.1	157.0	182.3	223.6	255.1
32.5°	121.4	135.7	163.1	206.4	241.2
35°	100.1	114.9	144.3	190.1	227.7
37.5°	78.5	94.0	125.5	174.1	214.2
40°	58.0	73.6	107.5	158.2	200.3
42.5°	38.8	54.4	89.1	142.7	187.2
45°	21.3	35.6	72.3	128.3	174.1
47.5°	11.4	19.6	56.0	114.4	159.4
50°	8.6	10.6	41.3	99.7	143.9
52.5°	7.4	8.2	28.6	84.2	128.3
55°	6.1	6.5	19.2	70.7	112.4
57.5°	4.9	5.3	14.3	57.2	95.2
60°	3.7	4.5	12.7	44.1	78.1
62.5°	2.9	3.7	11.9	32.3	61.7
65°	2.0	2.9	10.6	22.1	45.4
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	6.5	6.5	6.5
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	12.22	13.50	12.59	13.81	14.13
	3H	0.00	0.00	0.00	0.00	0.00	12.60	13.73	12.98	14.06	14.43
	4H	0.00	0.00	0.00	0.00	0.00	12.58	13.63	12.98	13.98	14.36
	6H	0.00	0.00	0.00	0.00	0.37	12.56	13.53	12.98	13.90	14.30
	8H	0.00	0.13	0.00	0.53	0.93	12.57	13.48	13.00	13.87	14.28
	12H	0.00	0.75	0.31	1.14	1.57	12.58	13.45	13.01	13.84	14.27
4H	2H	0.00	0.00	0.00	0.00	0.24	12.03	13.08	12.44	13.44	13.82
	3H	0.04	0.90	0.46	1.31	1.71	12.45	13.31	12.87	13.72	14.12
	4H	1.33	2.10	1.77	2.52	2.96	12.45	13.22	12.89	13.64	14.08
	6H	2.45	3.12	2.92	3.56	4.03	12.49	13.15	12.95	13.60	14.07
	8H	2.96	3.58	3.43	4.02	4.50	12.52	13.14	12.99	13.58	14.06
	12H	3.50	4.05	3.99	4.53	5.01	12.59	13.13	13.07	13.61	14.09
8H	4H	2.41	3.03	2.88	3.48	3.95	12.36	12.98	12.83	13.43	13.90
	6H	3.96	4.46	4.46	4.96	5.44	12.44	12.94	12.94	13.44	13.92
	8H	4.77	5.22	5.29	5.74	6.23	12.52	12.98	13.05	13.49	13.99
	12H	5.60	6.00	6.12	6.50	7.07	12.70	13.10	13.21	13.59	14.16
12H	4H	2.61	3.15	3.09	3.63	4.11	12.32	12.87	12.81	13.35	13.83
	6H	4.32	4.77	4.84	5.29	5.78	12.41	12.87	12.94	13.38	13.88
	8H	5.33	5.73	5.85	6.23	6.80	12.55	12.95	13.07	13.45	14.02