

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: P1060802

Luminaire Tested: S124RDR-H350D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060802
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

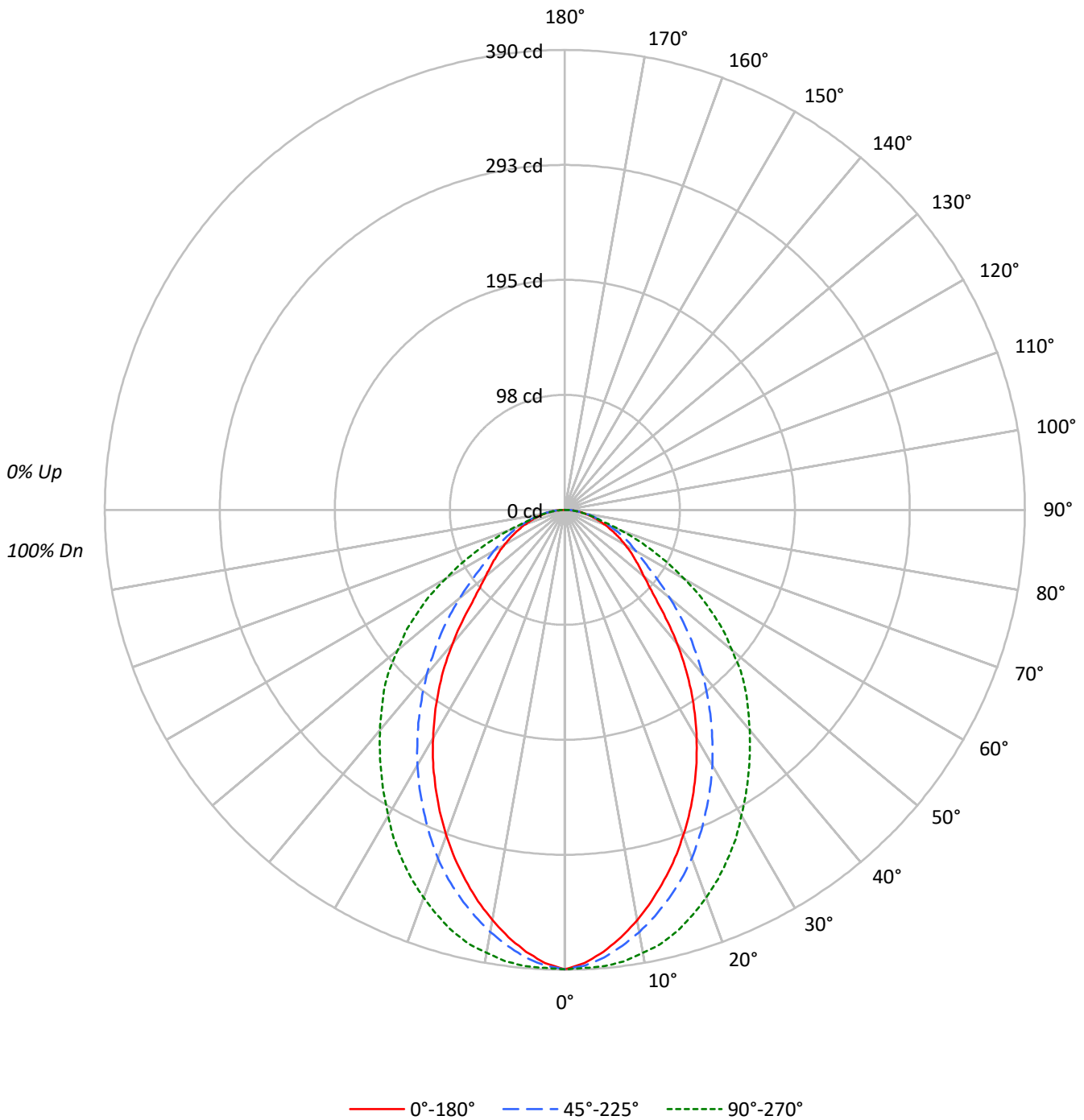
Lumens per Lamp: N/A
Luminaire Lumens: 709.4 lumens
Efficiency: N/A
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3355	3355	3355
5°	3252	3294	3357
10°	3089	3178	3336
15°	2898	3040	3295
20°	2691	2882	3207
25°	2465	2685	3104
30°	2221	2486	2977
35°	1957	2267	2855
40°	1667	2044	2741
45°	1353	1806	2641
50°	1171	1554	2473
55°	1085	1318	2294
60°	1013	1188	2012
65°	950	1115	1673
70°	884	1027	1264
75°	842	952	912
80°	788	873	769
85°	731	810	603

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2641 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	5.1
10°-20°	96.7	13.6
20°-30°	132.0	18.6
30°-40°	138.3	19.5
40°-50°	119.7	16.9
50°-60°	90.0	12.7
60°-70°	58.0	8.2
70°-80°	29.8	4.2
80°-90°	8.9	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°	264.7	37.3
0°-40°	403.0	56.8
0°-60°	612.7	86.4
0°-90°	709.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	709.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	376	382	381	384	388	35
15°	325	333	341	357	370	91
25°	259	269	283	305	327	119
35°	186	197	216	244	272	116
45°	111	122	148	185	217	88
55°	72	75	88	125	153	65
65°	47	47	55	66	82	46
75°	25	28	29	28	27	27
85°	7	9	8	8	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	389.6	389.6	389.6	389.6	389.6
2.5°	384.7	389.6	386.8	387.6	388.8
5°	376.2	381.9	381.1	383.9	388.4
7.5°	365.6	371.7	372.9	379.4	386.0
10°	353.3	360.2	363.5	373.3	381.5
12.5°	339.8	347.2	352.9	365.1	377.0
15°	325.1	333.3	341.0	356.6	369.6
17.5°	310.0	318.2	328.4	345.5	360.2
20°	293.7	302.7	314.5	332.5	350.0
22.5°	276.9	286.3	299.0	318.6	339.0
25°	259.4	269.2	282.6	304.7	326.7
27.5°	241.8	251.6	266.7	290.0	314.1
30°	223.4	233.6	250.0	275.3	299.4
32.5°	205.0	216.1	232.8	259.8	285.5
35°	186.2	196.9	215.7	244.2	271.6
37.5°	167.5	178.5	198.5	229.1	257.7
40°	148.3	159.7	181.8	214.0	243.8
42.5°	129.1	141.3	164.6	198.5	229.9
45°	111.1	122.5	148.3	184.6	216.9
47.5°	97.6	105.4	131.9	171.1	202.2
50°	87.4	91.5	116.0	156.4	184.6
52.5°	79.6	82.5	101.3	140.5	170.3
55°	72.3	74.7	87.8	125.4	152.8
57.5°	65.8	67.0	77.6	110.7	136.0
60°	58.8	60.0	69.0	94.8	116.8
62.5°	52.7	53.5	62.1	79.6	99.2
65°	46.6	47.4	54.7	66.2	82.1
67.5°	40.8	42.1	47.8	53.9	65.3
70°	35.1	37.6	40.8	43.7	50.2
72.5°	30.2	32.7	34.3	35.1	35.5
75°	25.3	28.2	28.6	28.2	27.4
77.5°	20.4	22.9	22.9	22.1	21.2
80°	15.9	18.0	17.6	16.7	15.5
82.5°	11.8	13.1	12.7	11.8	10.6
85°	7.4	8.6	8.2	7.8	6.1
87.5°	3.7	4.9	4.5	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	10.64	12.12	11.01	12.44	12.75	14.41	15.90	14.78	16.21	16.52
	3H	12.29	13.62	12.67	13.95	14.31	15.52	16.85	15.90	17.18	17.54
	4H	12.96	14.21	13.36	14.56	14.94	15.82	17.06	16.22	17.41	17.79
	6H	13.48	14.63	13.89	14.99	15.39	16.01	17.16	16.42	17.53	17.92
	8H	13.66	14.75	14.08	15.14	15.54	16.07	17.16	16.49	17.55	17.95
	12H	13.78	14.83	14.21	15.21	15.64	16.09	17.14	16.52	17.52	17.95
4H	2H	11.42	12.67	11.82	13.02	13.40	14.57	15.82	14.97	16.17	16.54
	3H	13.28	14.32	13.69	14.72	15.12	15.88	16.91	16.29	17.31	17.72
	4H	14.09	15.02	14.52	15.44	15.88	16.29	17.22	16.72	17.64	18.07
	6H	14.74	15.55	15.20	15.99	16.45	16.61	17.41	17.06	17.86	18.32
	8H	14.97	15.72	15.43	16.17	16.63	16.70	17.45	17.16	17.90	18.36
	12H	15.14	15.81	15.62	16.29	16.76	16.76	17.43	17.24	17.91	18.38
8H	4H	14.44	15.20	14.91	15.64	16.11	16.42	17.18	16.89	17.62	18.09
	6H	15.24	15.86	15.73	16.35	16.83	16.83	17.46	17.33	17.95	18.43
	8H	15.56	16.12	16.07	16.63	17.11	16.98	17.54	17.50	18.05	18.54
	12H	15.82	16.32	16.33	16.81	17.37	17.11	17.60	17.62	18.10	18.66
12H	4H	14.47	15.14	14.95	15.62	16.09	16.43	17.10	16.91	17.58	18.05
	6H	15.30	15.86	15.81	16.37	16.86	16.86	17.42	17.37	17.93	18.42
	8H	15.68	16.18	16.19	16.67	17.24	17.06	17.55	17.57	18.04	18.61