

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: P1060839

Luminaire Tested: S124RDR-H350D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D930-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

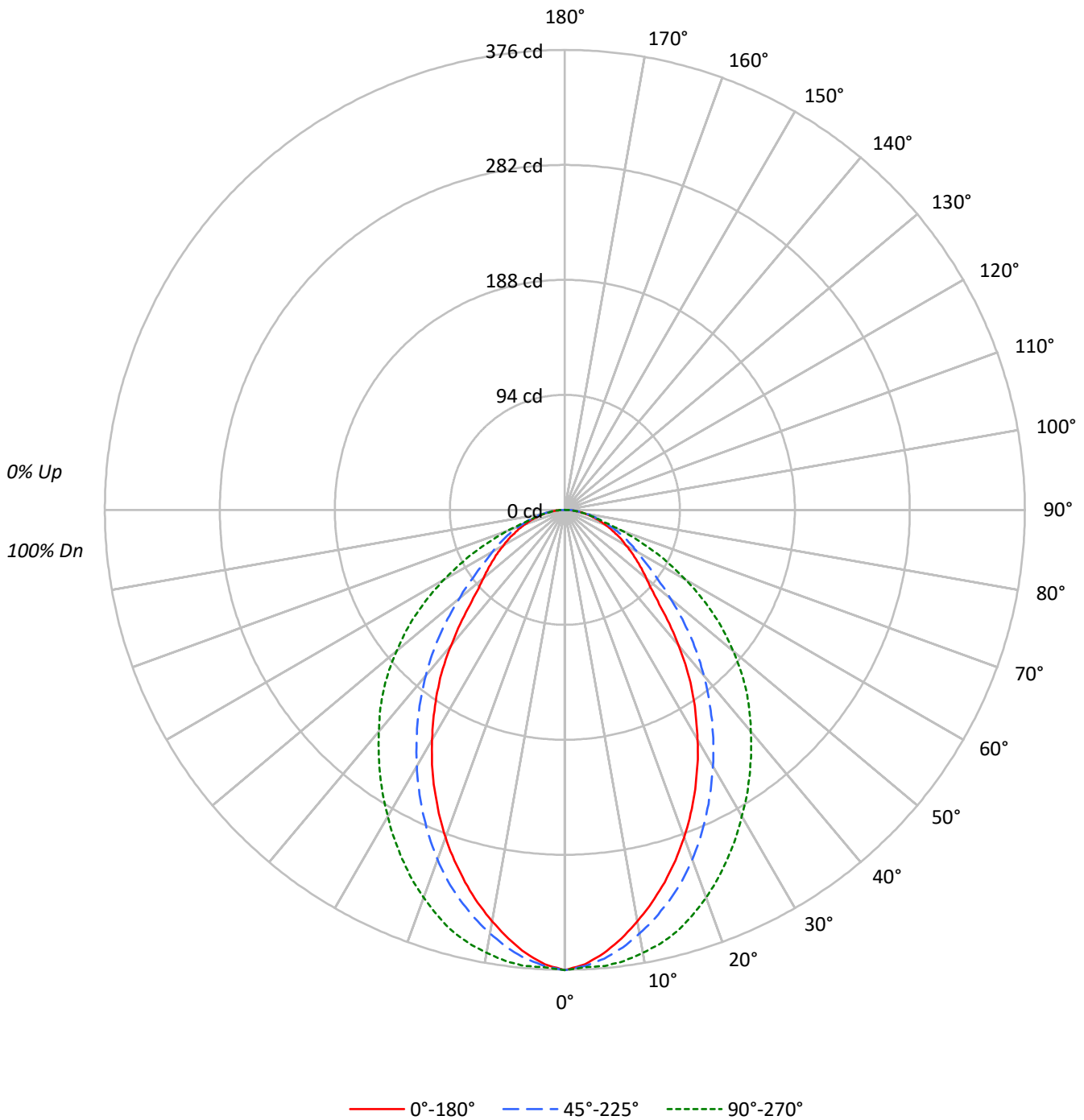
Lumens per Lamp: N/A
Luminaire Lumens: 690.5 lumens
Efficiency: N/A
Efficacy: 59.0 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89				87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77				75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67				65	
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59				57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52				50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47				45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42				40	
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38				37	
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35				33	
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32				31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3240	3240	3240
5°	3146	3184	3235
10°	2988	3075	3215
15°	2809	2945	3177
20°	2613	2789	3092
25°	2395	2604	2990
30°	2159	2407	2878
35°	1911	2202	2769
40°	1624	1987	2659
45°	1330	1756	2555
50°	1164	1508	2405
55°	1070	1300	2225
60°	992	1169	1962
65°	929	1100	1642
70°	871	1007	1234
75°	818	918	898
80°	759	843	759
85°	692	820	662

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2555 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	5.0
10°-20°	93.6	13.6
20°-30°	127.9	18.5
30°-40°	134.4	19.5
40°-50°	116.7	16.9
50°-60°	88.0	12.7
60°-70°	57.0	8.3
70°-80°	29.3	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°	256.3	37.1
0°-40°	390.7	56.6
0°-60°	595.4	86.2
0°-90°	690.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	690.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	376	376	376	376	376	
5°	364	369	368	371	374	34
15°	315	323	330	345	356	88
25°	252	261	274	295	315	116
35°	182	192	210	238	263	113
45°	109	120	144	180	210	86
55°	71	73	87	123	148	64
65°	46	47	54	65	81	45
75°	25	28	28	28	27	26
85°	7	9	8	8	7	8
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	376.3	376.3	376.3	376.3	376.3
2.5°	372.0	376.7	373.3	374.0	374.3
5°	364.0	369.0	368.3	371.3	374.3
7.5°	353.7	359.7	361.0	367.0	372.0
10°	341.7	348.4	351.7	361.3	367.7
12.5°	329.0	335.7	341.7	354.0	363.0
15°	315.1	322.7	330.4	345.4	356.4
17.5°	300.4	308.4	318.1	334.4	347.4
20°	285.1	293.1	304.4	322.0	337.4
22.5°	268.8	277.8	289.7	308.7	326.7
25°	252.1	261.1	274.1	295.1	314.7
27.5°	234.8	244.1	258.1	281.4	302.4
30°	217.1	227.1	242.1	266.8	289.4
32.5°	199.2	209.8	225.8	252.1	276.8
35°	181.8	191.8	209.5	237.5	263.4
37.5°	163.9	173.8	192.8	223.1	250.1
40°	144.5	155.5	176.8	208.1	236.5
42.5°	126.6	137.5	160.5	193.8	223.5
45°	109.2	119.6	144.2	180.2	209.8
47.5°	95.9	103.2	127.9	166.9	195.2
50°	86.9	90.3	112.6	152.2	179.5
52.5°	78.9	81.6	98.6	137.5	164.2
55°	71.3	73.3	86.6	122.9	148.2
57.5°	64.6	65.6	75.9	108.2	130.9
60°	57.6	58.9	67.9	93.3	113.9
62.5°	52.0	52.6	60.9	78.9	96.9
65°	45.6	46.6	54.0	65.3	80.6
67.5°	40.0	41.6	46.6	53.3	63.6
70°	34.6	37.0	40.0	43.3	49.0
72.5°	29.6	32.3	34.0	35.3	34.3
75°	24.6	27.6	27.6	28.0	27.0
77.5°	20.0	22.6	22.3	22.0	20.6
80°	15.3	17.7	17.0	16.7	15.3
82.5°	11.3	13.0	12.3	12.0	10.3
85°	7.0	8.7	8.3	8.0	6.7
87.5°	3.3	5.0	4.7	4.3	3.0
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	10.59	12.07	10.95	12.39	12.70	14.32	15.81	14.69	16.12	16.44
	3H	12.25	13.59	12.63	13.92	14.28	15.45	16.78	15.83	17.11	17.47
	4H	12.92	14.17	13.32	14.52	14.90	15.75	17.00	16.15	17.35	17.72
	6H	13.43	14.58	13.84	14.95	15.34	15.95	17.10	16.36	17.47	17.86
	8H	13.60	14.70	14.03	15.09	15.49	16.00	17.10	16.43	17.49	17.89
	12H	13.72	14.77	14.15	15.15	15.58	16.04	17.09	16.47	17.47	17.90
4H	2H	11.38	12.63	11.78	12.98	13.36	14.49	15.74	14.89	16.09	16.47
	3H	13.25	14.29	13.66	14.69	15.09	15.82	16.86	16.23	17.26	17.66
	4H	14.05	14.99	14.49	15.40	15.84	16.24	17.17	16.67	17.59	18.03
	6H	14.70	15.51	15.16	15.95	16.41	16.56	17.37	17.02	17.81	18.27
	8H	14.92	15.68	15.39	16.12	16.59	16.65	17.41	17.12	17.86	18.32
	12H	15.09	15.76	15.57	16.24	16.71	16.73	17.40	17.21	17.88	18.35
8H	4H	14.40	15.16	14.87	15.60	16.07	16.37	17.13	16.84	17.57	18.04
	6H	15.19	15.82	15.69	16.31	16.79	16.79	17.42	17.29	17.91	18.39
	8H	15.51	16.07	16.03	16.58	17.07	16.95	17.51	17.46	18.02	18.51
	12H	15.78	16.27	16.29	16.76	17.33	17.09	17.58	17.60	18.08	18.64
12H	4H	14.43	15.11	14.92	15.59	16.06	16.38	17.05	16.86	17.53	18.00
	6H	15.25	15.82	15.77	16.33	16.82	16.81	17.38	17.33	17.89	18.37
	8H	15.64	16.14	16.15	16.63	17.19	17.02	17.52	17.53	18.01	18.58