

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: P1060828

Luminaire Tested: S124RDR-H350D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060828
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: S124RDR-H350D927-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

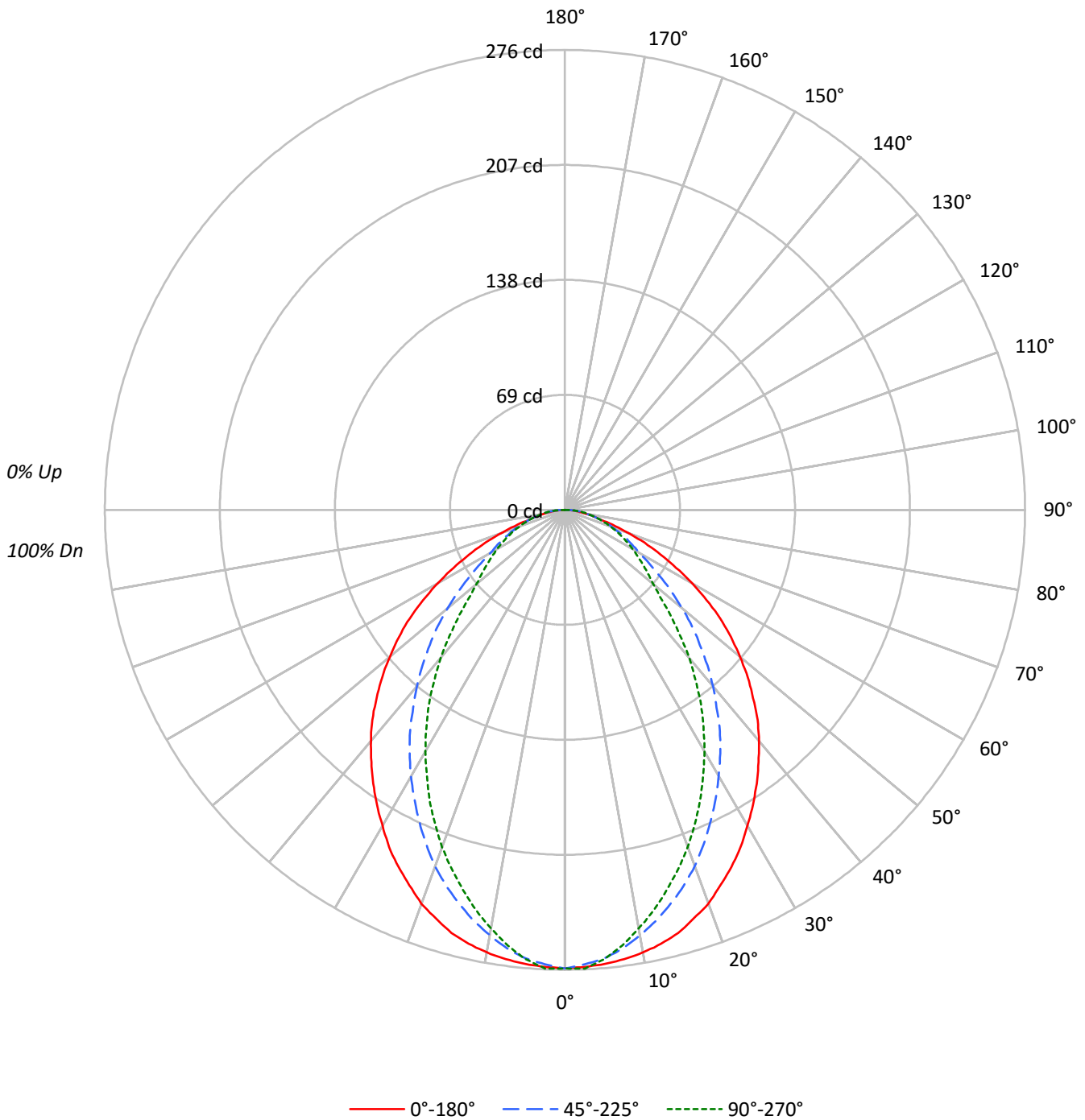
Lumens per Lamp: N/A
Luminaire Lumens: 530.6 lumens
Efficiency: N/A
Efficacy: 45.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44			44	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36			36	
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30			30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2370	2370	2370
5°	2365	2336	2340
10°	2358	2267	2231
15°	2344	2182	2105
20°	2306	2087	1974
25°	2246	1963	1825
30°	2177	1836	1665
35°	2108	1703	1496
40°	2036	1552	1305
45°	1945	1394	1091
50°	1837	1230	923
55°	1708	1043	854
60°	1516	885	808
65°	1292	817	764
70°	1010	758	725
75°	689	699	699
80°	595	660	674
85°	514	642	701

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1945 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	4.8
10°-20°	69.5	13.1
20°-30°	96.5	18.2
30°-40°	103.5	19.5
40°-50°	91.7	17.3
50°-60°	69.1	13.0
60°-70°	44.7	8.4
70°-80°	23.0	4.3
80°-90°	7.0	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°	191.7	36.1
0°-40°	295.1	55.6
0°-60°	455.9	85.9
0°-90°	530.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	530.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	275	275	275	275	275	
5°	274	274	270	271	271	26
15°	263	257	245	239	236	74
25°	236	224	207	196	192	109
35°	200	182	162	148	142	125
45°	160	139	114	97	90	123
55°	114	95	70	58	57	101
65°	63	51	40	38	38	63
75°	21	22	21	21	21	25
85°	5	6	6	7	7	6
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	275.2	275.2	275.2	275.2	275.2
2.5°	274.5	275.5	272.9	274.9	275.5
5°	273.6	273.9	270.3	270.7	270.7
7.5°	272.0	271.3	265.5	263.9	263.6
10°	269.7	267.8	259.3	256.1	255.1
12.5°	266.8	263.2	252.6	248.0	246.1
15°	262.9	257.1	244.8	238.7	236.1
17.5°	257.1	249.6	236.7	228.9	226.0
20°	251.6	241.6	227.7	218.0	215.4
22.5°	243.8	233.2	217.3	207.0	203.7
25°	236.4	223.8	206.6	195.6	192.1
27.5°	228.3	214.1	195.6	184.0	179.5
30°	218.9	203.7	184.6	172.4	167.5
32.5°	209.9	193.7	173.3	159.7	154.6
35°	200.5	182.4	162.0	147.5	142.3
37.5°	190.8	171.7	149.4	135.2	128.4
40°	181.1	161.0	138.1	121.9	116.1
42.5°	171.1	150.0	126.4	109.6	102.2
45°	159.7	139.1	114.5	96.7	89.6
47.5°	148.8	128.4	103.5	84.1	77.6
50°	137.1	117.1	91.8	73.1	68.9
52.5°	125.5	105.4	80.5	64.7	62.7
55°	113.8	94.7	69.5	58.5	56.9
57.5°	100.9	83.8	59.8	53.0	51.7
60°	88.0	71.8	51.4	47.9	46.9
62.5°	75.3	61.4	45.6	42.7	42.0
65°	63.4	51.1	40.1	37.8	37.5
67.5°	51.7	42.0	34.9	33.6	33.0
70°	40.1	33.6	30.1	29.4	28.8
72.5°	29.8	27.2	25.5	25.2	24.9
75°	20.7	21.7	21.0	21.0	21.0
77.5°	16.5	16.8	17.1	17.5	17.1
80°	12.0	12.9	13.3	13.9	13.6
82.5°	8.4	9.1	10.0	10.3	10.7
85°	5.2	5.5	6.5	7.1	7.1
87.5°	2.3	2.6	3.2	3.9	4.2
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	13.44	14.94	13.80	15.25	15.57	10.00	11.50	10.36	11.81	12.12
	3H	14.64	15.99	15.02	16.31	16.68	11.69	13.04	12.07	13.37	13.73
	4H	14.95	16.21	15.35	16.56	16.94	12.37	13.63	12.77	13.98	14.36
	6H	15.15	16.32	15.57	16.68	17.07	12.92	14.08	13.33	14.45	14.84
	8H	15.21	16.32	15.64	16.71	17.11	13.14	14.25	13.57	14.64	15.04
	12H	15.24	16.30	15.68	16.69	17.12	13.31	14.37	13.74	14.75	15.18
4H	2H	13.58	14.84	13.98	15.19	15.57	10.66	11.92	11.06	12.27	12.65
	3H	14.98	16.03	15.39	16.43	16.83	12.57	13.61	12.98	14.01	14.42
	4H	15.41	16.35	15.84	16.76	17.20	13.37	14.31	13.80	14.73	15.17
	6H	15.73	16.55	16.19	16.99	17.45	14.06	14.88	14.52	15.32	15.78
	8H	15.83	16.60	16.29	17.04	17.51	14.33	15.10	14.80	15.54	16.01
	12H	15.90	16.58	16.38	17.06	17.53	14.56	15.24	15.05	15.72	16.20
8H	4H	15.53	16.30	16.00	16.74	17.21	13.69	14.45	14.15	14.90	15.36
	6H	15.96	16.59	16.45	17.08	17.56	14.52	15.15	15.01	15.64	16.12
	8H	16.11	16.68	16.63	17.19	17.68	14.88	15.45	15.40	15.96	16.45
	12H	16.24	16.75	16.75	17.24	17.80	15.21	15.72	15.72	16.21	16.77
12H	4H	15.54	16.22	16.02	16.70	17.17	13.72	14.40	14.20	14.88	15.35
	6H	15.98	16.55	16.50	17.06	17.55	14.58	15.14	15.09	15.65	16.14
	8H	16.19	16.69	16.70	17.18	17.75	15.01	15.51	15.52	16.00	16.57