

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: P1060852

Luminaire Tested: S124RDR-H350D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060852
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

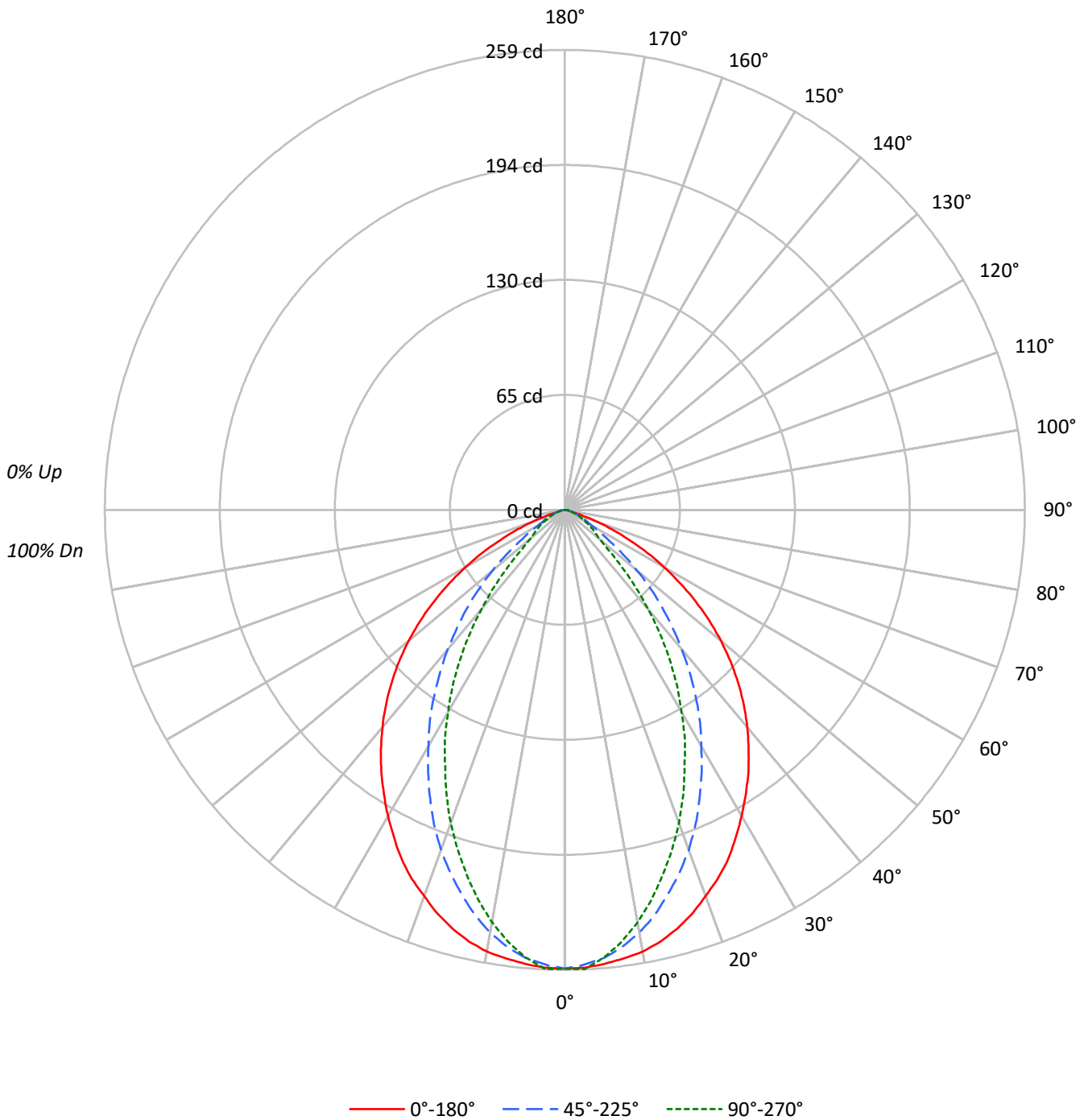
Lumens per Lamp: N/A
Luminaire Lumens: 381.0 lumens
Efficiency: N/A
Efficacy: 32.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90			90	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80			80	
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63			63	
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57			57	
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51			51	
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43			43	
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2225	2225	2225
5°	2218	2190	2187
10°	2209	2113	2063
15°	2177	1999	1898
20°	2121	1868	1721
25°	2065	1705	1515
30°	1980	1527	1307
35°	1894	1351	1079
40°	1796	1150	818
45°	1681	940	549
50°	1537	711	342
55°	1350	470	290
60°	1116	288	238
65°	809	222	194
70°	441	166	146
75°	96	120	133
80°	74	89	109
85°	69	69	109

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1681 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.9	6.3
10°-20°	63.6	16.7
20°-30°	84.2	22.1
30°-40°	83.6	21.9
40°-50°	64.3	16.9
50°-60°	38.4	10.1
60°-70°	17.4	4.6
70°-80°	4.5	1.2
80°-90°	1.0	0.3
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°	171.8	45.1
0°-40°	255.4	67.0
0°-60°	358.1	94.0
0°-90°	381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	258	258	258	258	258	
5°	257	257	253	253	253	24
15°	244	238	224	217	213	69
25°	217	202	180	164	159	100
35°	180	158	128	109	103	112
45°	138	111	77	54	45	106
55°	90	64	31	20	19	80
65°	40	24	11	10	10	40
75°	3	4	4	4	4	6
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	258.4	258.4	258.4	258.4	258.4
2.5°	258.1	258.4	256.3	258.1	258.8
5°	256.6	257.0	253.3	253.3	253.0
7.5°	254.8	254.1	248.2	246.1	245.3
10°	252.6	250.1	241.7	237.3	235.9
12.5°	249.0	245.0	233.7	227.5	225.0
15°	244.2	238.1	224.2	216.6	212.9
17.5°	238.4	230.8	214.4	204.6	200.6
20°	231.5	221.3	203.8	191.5	187.8
22.5°	225.0	212.2	192.2	178.0	174.0
25°	217.3	201.7	179.5	164.5	159.4
27.5°	208.2	191.5	166.7	151.4	146.3
30°	199.1	180.5	153.6	137.6	131.4
32.5°	189.6	169.3	141.6	123.4	117.6
35°	180.2	157.6	128.5	108.8	102.6
37.5°	170.0	146.0	115.4	95.0	88.1
40°	159.8	134.7	102.3	81.5	72.8
42.5°	149.2	123.0	89.5	67.7	59.0
45°	138.0	111.0	77.2	53.9	45.1
47.5°	126.7	99.7	64.8	40.4	32.4
50°	114.7	87.7	53.1	29.5	25.5
52.5°	102.6	76.1	41.5	22.9	21.8
55°	89.9	64.1	31.3	19.7	19.3
57.5°	76.8	53.1	22.6	17.1	16.4
60°	64.8	43.0	16.7	14.6	13.8
62.5°	52.4	32.4	13.8	12.0	11.3
65°	39.7	23.7	10.9	9.5	9.5
67.5°	28.8	16.0	8.7	7.6	7.3
70°	17.5	9.8	6.6	6.2	5.8
72.5°	8.7	5.8	5.1	4.7	4.7
75°	2.9	3.6	3.6	4.0	4.0
77.5°	2.2	2.5	2.5	2.9	2.9
80°	1.5	1.8	1.8	2.2	2.2
82.5°	1.1	1.1	1.5	1.5	1.8
85°	0.7	0.7	0.7	1.1	1.1
87.5°	0.4	0.4	0.4	0.7	0.7
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	11.89	13.23	12.26	13.54	13.86	3.45	4.78	3.81	5.09	5.41
	3H	12.40	13.59	12.78	13.92	14.28	4.26	5.44	4.64	5.77	6.14
	4H	12.37	13.47	12.77	13.82	14.20	4.54	5.64	4.95	5.99	6.37
	6H	12.31	13.31	12.72	13.68	14.08	4.71	5.72	5.13	6.09	6.49
	8H	12.27	13.22	12.70	13.61	14.02	4.78	5.73	5.21	6.12	6.53
	12H	12.23	13.14	12.66	13.52	13.95	4.82	5.74	5.26	6.12	6.55
4H	2H	11.74	12.83	12.14	13.19	13.57	3.89	4.98	4.29	5.34	5.72
	3H	12.29	13.19	12.70	13.59	13.99	4.85	5.74	5.26	6.15	6.55
	4H	12.26	13.06	12.69	13.48	13.92	5.21	6.01	5.65	6.43	6.87
	6H	12.21	12.89	12.67	13.34	13.81	5.46	6.15	5.93	6.60	7.06
	8H	12.16	12.80	12.63	13.25	13.72	5.55	6.19	6.02	6.64	7.11
	12H	12.12	12.69	12.61	13.17	13.64	5.63	6.19	6.12	6.68	7.15
8H	4H	12.15	12.79	12.62	13.24	13.71	5.30	5.94	5.77	6.38	6.86
	6H	12.09	12.61	12.59	13.11	13.59	5.61	6.13	6.11	6.63	7.11
	8H	12.04	12.51	12.56	13.02	13.52	5.75	6.21	6.27	6.73	7.22
	12H	12.01	12.42	12.52	12.92	13.49	5.88	6.30	6.40	6.79	7.36
12H	4H	12.11	12.67	12.59	13.15	13.63	5.27	5.84	5.76	6.32	6.79
	6H	12.03	12.50	12.55	13.02	13.51	5.59	6.06	6.11	6.58	7.07
	8H	12.01	12.42	12.52	12.91	13.49	5.77	6.18	6.28	6.68	7.25