

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: P1060222

Luminaire Tested: S124RDR-S1020D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060222
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-S1020D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

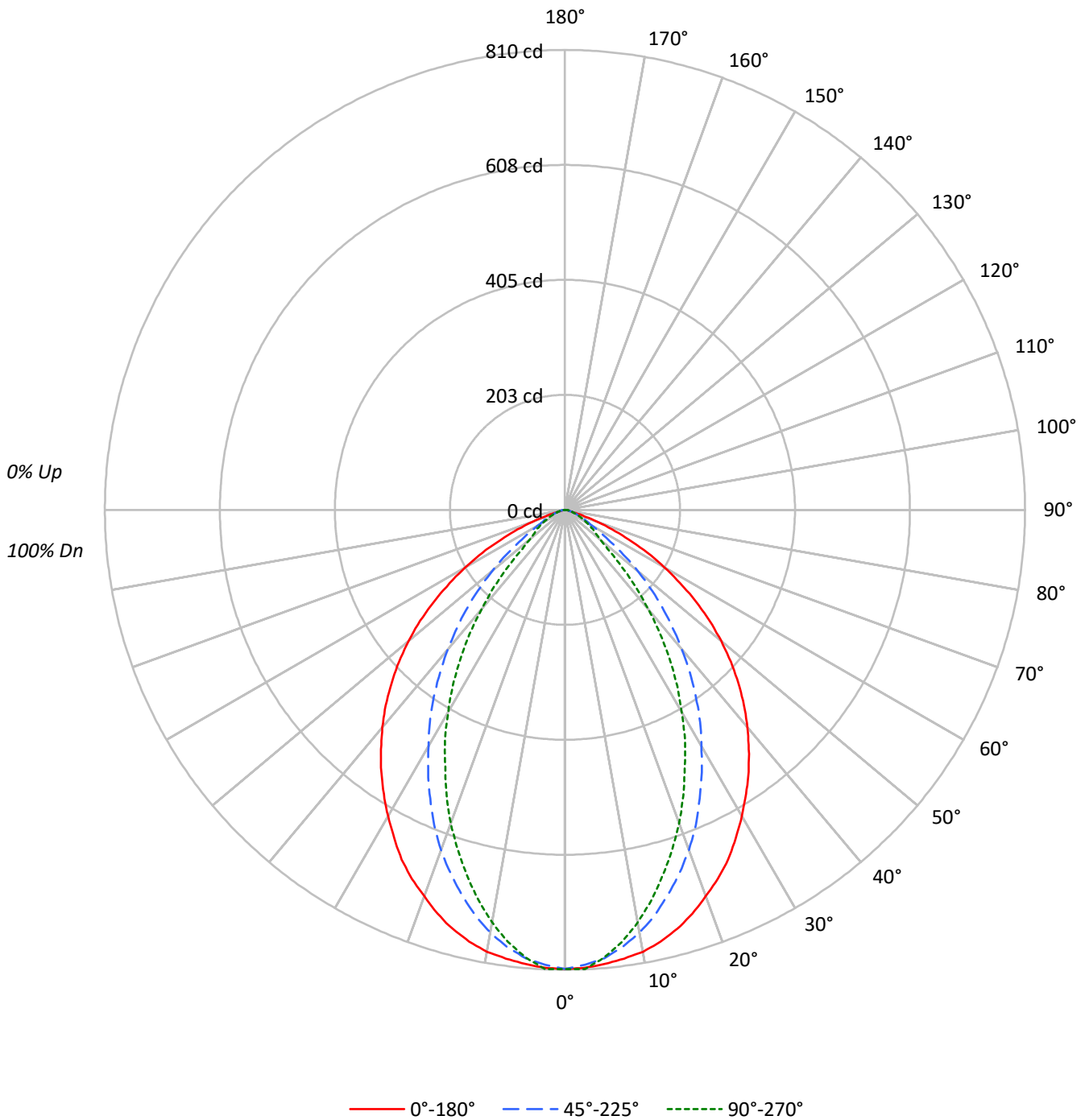
Lumens per Lamp: N/A
Luminaire Lumens: 1192.0 lumens
Efficiency: N/A
Efficacy: 34.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	63	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°	6962	6962	6962
5°	6939	6851	6841
10°	6910	6611	6452
15°	6812	6254	5939
20°	6636	5844	5385
25°	6459	5334	4739
30°	6194	4778	4088
35°	5926	4226	3375
40°	5619	3597	2560
45°	5256	2940	1720
50°	4805	2228	1068
55°	4223	1470	907
60°	3491	902	746
65°	2529	697	603
70°	1377	516	458
75°	303	379	416
80°	228	283	337
85°	227	227	336

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5256 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.9	6.3
10°-20°	199.0	16.7
20°-30°	263.6	22.1
30°-40°	261.6	21.9
40°-50°	201.3	16.9
50°-60°	120.0	10.1
60°-70°	54.5	4.6
70°-80°	14.1	1.2
80°-90°	3.1	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°	537.4	45.1
0°-40°	799.0	67.0
0°-60°	1120.2	94.0
0°-90°	1192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	803	804	793	793	791	76
15°	764	745	702	678	666	215
25°	680	631	561	515	499	312
35°	564	493	402	340	321	352
45°	432	347	241	168	141	332
55°	281	200	98	62	60	251
65°	124	74	34	30	30	125
75°	9	11	11	12	12	19
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.5	808.5	808.5	808.5	808.5
2.5°	807.4	808.5	801.7	807.4	809.6
5°	802.8	803.9	792.6	792.6	791.4
7.5°	797.1	794.8	776.6	769.8	767.5
10°	790.3	782.3	756.1	742.5	737.9
12.5°	778.9	766.4	731.1	711.7	703.7
15°	764.1	744.7	701.5	677.5	666.2
17.5°	745.9	722.0	670.7	640.0	627.4
20°	724.2	692.3	637.7	599.0	587.6
22.5°	703.7	663.9	601.3	556.8	544.3
25°	679.8	630.9	561.4	514.7	498.8
27.5°	651.4	599.0	521.5	473.7	457.8
30°	622.9	564.8	480.5	430.4	411.1
32.5°	593.3	529.5	443.0	386.0	367.8
35°	563.7	493.1	402.0	340.5	321.1
37.5°	531.8	456.6	361.0	297.2	275.6
40°	499.9	421.3	320.0	255.1	227.7
42.5°	466.9	384.9	280.1	211.8	184.5
45°	431.6	347.3	241.4	168.5	141.2
47.5°	396.3	312.0	202.7	126.4	101.3
50°	358.7	274.4	166.3	92.2	79.7
52.5°	321.1	238.0	129.8	71.7	68.3
55°	281.3	200.4	97.9	61.5	60.4
57.5°	240.3	166.3	70.6	53.5	51.2
60°	202.7	134.4	52.4	45.5	43.3
62.5°	164.0	101.3	43.3	37.6	35.3
65°	124.1	74.0	34.2	29.6	29.6
67.5°	90.0	50.1	27.3	23.9	22.8
70°	54.7	30.7	20.5	19.4	18.2
72.5°	27.3	18.2	15.9	14.8	14.8
75°	9.1	11.4	11.4	12.5	12.5
77.5°	6.8	8.0	8.0	9.1	9.1
80°	4.6	5.7	5.7	6.8	6.8
82.5°	3.4	3.4	4.6	4.6	5.7
85°	2.3	2.3	2.3	3.4	3.4
87.5°	1.1	1.1	1.1	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)