

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059253

Luminaire Tested: S123RDRP-S560D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059253
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D830-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

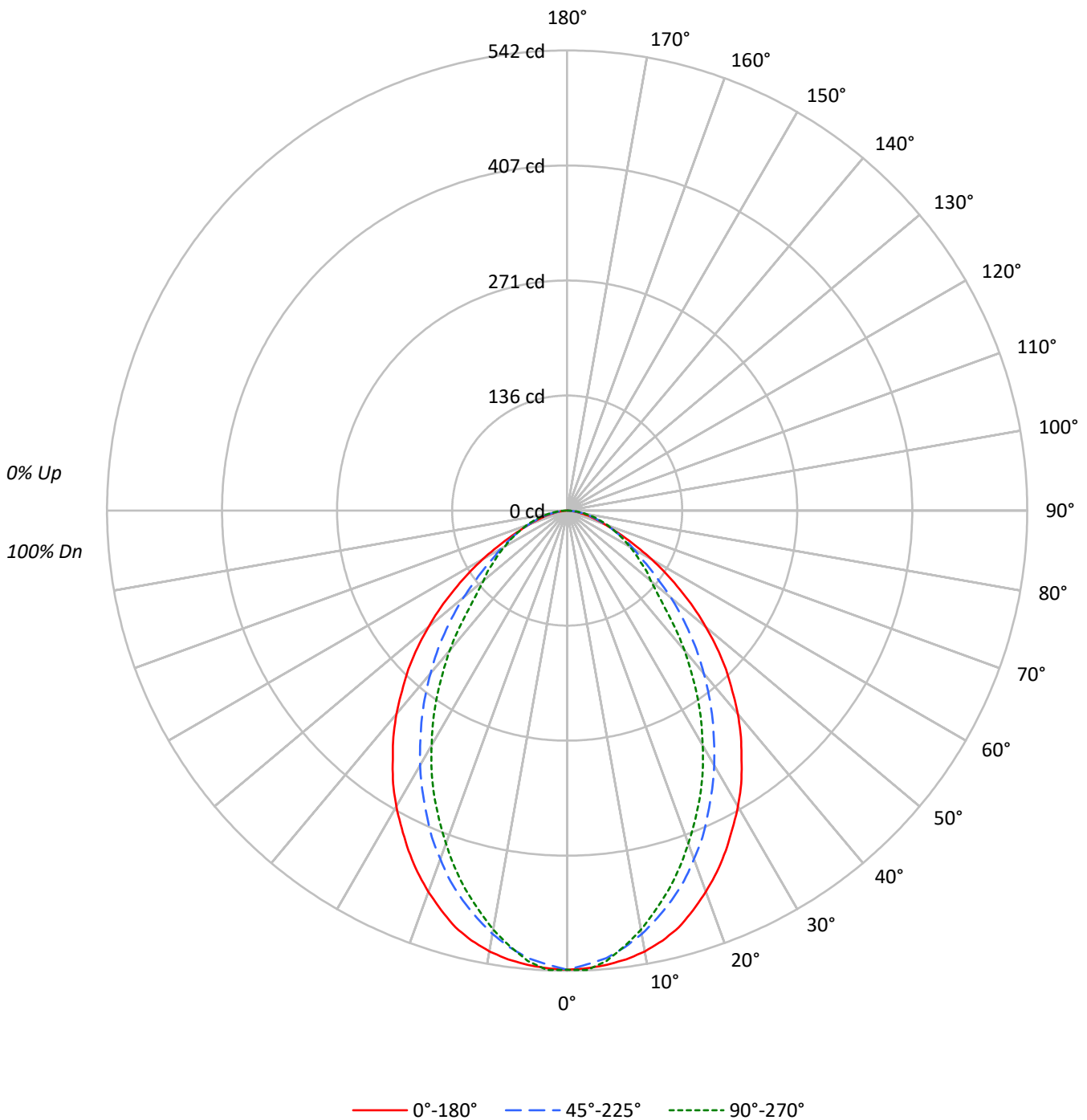
Lumens per Lamp: N/A
Luminaire Lumens: 946.0 lumens
Efficiency: N/A
Efficacy: 48.3 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6351	6351	6351
5°	6330	6238	6276
10°	6286	6038	5976
15°	6179	5777	5619
20°	5971	5458	5215
25°	5727	5087	4800
30°	5456	4698	4328
35°	5135	4278	3830
40°	4793	3837	3299
45°	4394	3389	2710
50°	3895	2910	2351
55°	3314	2436	2156
60°	2703	2123	2001
65°	2059	1878	1862
70°	1607	1675	1741
75°	1298	1506	1624
80°	967	1231	1494
85°	525	795	1320

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4394 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.2	5.3
10°-20°	135.1	14.3
20°-30°	183.6	19.4
30°-40°	190.4	20.1
40°-50°	160.6	17.0
50°-60°	114.0	12.0
60°-70°	69.7	7.4
70°-80°	34.7	3.7
80°-90°	7.9	0.8
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°	368.9	39.0
0°-40°	559.3	59.1
0°-60°	833.8	88.1
0°-90°	946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	537	537	529	532	532	51
15°	508	499	475	467	462	143
25°	442	422	393	378	370	203
35°	358	331	298	278	267	224
45°	265	237	204	176	163	203
55°	162	145	119	109	105	145
65°	74	72	68	68	67	76
75°	29	31	33	34	36	31
85°	4	5	6	8	10	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	540.9	540.9	540.9	540.9	540.9
2.5°	539.6	540.2	535.0	540.9	541.5
5°	537.0	537.0	529.2	532.4	532.4
7.5°	533.1	531.8	518.8	518.8	517.5
10°	527.2	523.3	506.4	503.1	501.2
12.5°	518.8	512.2	491.4	485.6	481.7
15°	508.3	498.6	475.2	466.7	462.2
17.5°	493.4	483.6	457.6	445.9	440.7
20°	477.8	463.5	436.8	425.1	417.3
22.5°	460.9	442.7	416.7	402.4	393.9
25°	442.0	422.5	392.6	378.3	370.5
27.5°	421.9	400.4	369.9	353.6	345.8
30°	402.4	377.7	346.5	328.3	319.2
32.5°	381.6	353.6	321.8	302.9	293.8
35°	358.2	330.9	298.4	277.6	267.2
37.5°	336.1	308.1	274.3	252.2	240.5
40°	312.7	284.7	250.3	227.5	215.2
42.5°	288.0	261.3	227.5	200.9	189.2
45°	264.6	236.6	204.1	176.2	163.2
47.5°	239.2	213.2	181.4	152.8	143.7
50°	213.2	189.2	159.3	133.3	128.7
52.5°	187.9	167.7	137.2	120.3	118.3
55°	161.9	145.0	119.0	108.6	105.3
57.5°	137.8	125.5	102.1	96.9	95.6
60°	115.1	104.7	90.4	87.1	85.2
62.5°	93.0	87.1	78.7	77.4	76.1
65°	74.1	71.5	67.6	67.6	67.0
67.5°	58.5	58.5	57.9	59.2	58.5
70°	46.8	47.5	48.8	50.1	50.7
72.5°	37.1	39.0	40.3	42.3	42.9
75°	28.6	30.6	33.2	34.5	35.8
77.5°	20.8	22.8	25.4	27.3	28.6
80°	14.3	15.6	18.2	20.8	22.1
82.5°	9.1	9.8	11.7	14.3	15.6
85°	3.9	4.6	5.9	8.5	9.8
87.5°	0.0	0.0	0.7	2.6	4.6
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	15.23	16.68	15.60	17.00	17.31	13.33	14.78	13.70	15.09	15.41
	3H	16.13	17.43	16.51	17.75	18.12	14.90	16.20	15.28	16.53	16.89
	4H	16.41	17.63	16.81	17.97	18.35	15.50	16.71	15.90	17.06	17.44
	6H	16.56	17.68	16.98	18.05	18.44	15.95	17.07	16.36	17.44	17.83
	8H	16.59	17.65	17.01	18.04	18.44	16.10	17.16	16.53	17.55	17.95
	12H	16.58	17.60	17.01	17.98	18.41	16.20	17.21	16.63	17.60	18.03
4H	2H	15.48	16.69	15.88	17.04	17.42	13.87	15.08	14.27	15.43	15.81
	3H	16.59	17.59	17.00	17.99	18.39	15.65	16.65	16.06	17.05	17.45
	4H	16.98	17.88	17.41	18.30	18.74	16.36	17.26	16.79	17.67	18.11
	6H	17.22	18.00	17.68	18.45	18.91	16.93	17.71	17.39	18.15	18.61
	8H	17.27	17.99	17.73	18.44	18.91	17.12	17.85	17.59	18.29	18.76
	12H	17.27	17.92	17.76	18.40	18.87	17.26	17.91	17.74	18.39	18.86
8H	4H	17.14	17.87	17.60	18.31	18.78	16.57	17.30	17.03	17.74	18.21
	6H	17.45	18.05	17.95	18.54	19.02	17.24	17.84	17.74	18.33	18.81
	8H	17.53	18.07	18.05	18.58	19.07	17.50	18.04	18.02	18.55	19.04
	12H	17.56	18.04	18.08	18.53	19.10	17.71	18.18	18.22	18.68	19.24
12H	4H	17.14	17.79	17.63	18.27	18.74	16.57	17.21	17.05	17.69	18.17
	6H	17.47	18.00	17.98	18.52	19.01	17.25	17.79	17.77	18.30	18.79
	8H	17.58	18.06	18.09	18.55	19.12	17.56	18.03	18.07	18.52	19.09