

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: P1059247

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D830-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

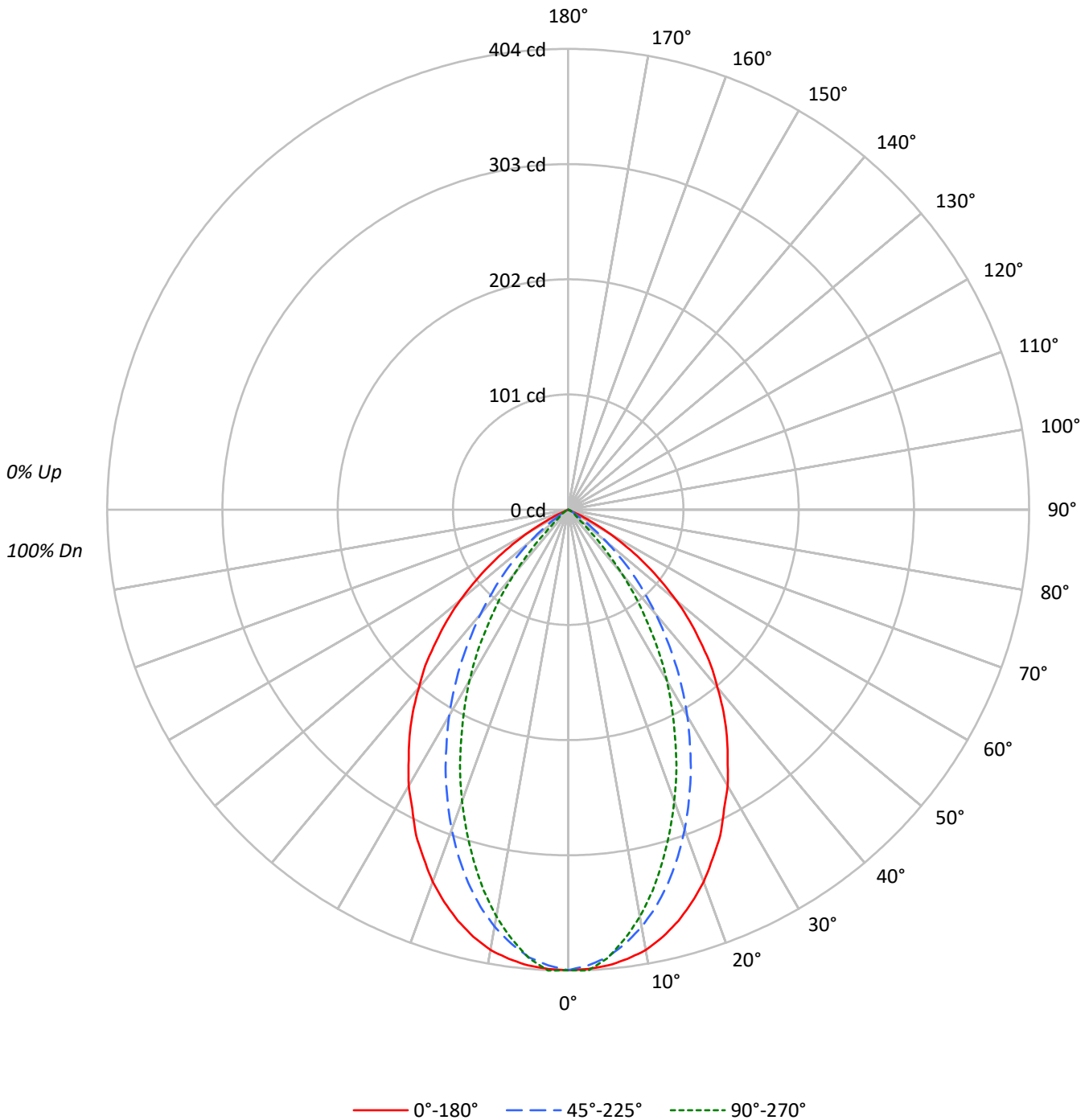
Lumens per Lamp: N/A
Luminaire Lumens: 460.7 lumens
Efficiency: N/A
Efficacy: 23.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4740	4740	4740
5°	4728	4643	4651
10°	4674	4426	4318
15°	4536	4117	3880
20°	4337	3729	3395
25°	4085	3294	2872
30°	3790	2830	2344
35°	3476	2339	1743
40°	3119	1833	1116
45°	2720	1338	465
50°	2256	796	179
55°	1664	334	133
60°	1008	122	78
65°	272	72	36
70°	0	24	24
75°	0	0	32
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2720 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	8.1
10°-20°	95.9	20.8
20°-30°	119.5	25.9
30°-40°	106.9	23.2
40°-50°	67.5	14.6
50°-60°	28.2	6.1
60°-70°	5.3	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	252.6	54.8
0°-40°	359.5	78.0
0°-60°	455.2	98.8
0°-90°	460.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	460.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	401	400	394	395	395	38
15°	373	364	339	324	319	105
25°	315	290	254	232	222	144
35°	242	207	163	134	122	151
45°	164	127	81	43	28	126
55°	81	56	16	6	6	73
65°	10	7	3	1	1	14
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	403.7	403.7	403.7	403.7	403.7
2.5°	403.0	403.7	399.8	403.7	404.3
5°	401.1	400.4	393.9	395.2	394.6
7.5°	397.2	395.2	383.5	380.9	379.6
10°	392.0	386.8	371.2	364.7	362.1
12.5°	383.5	376.4	356.2	345.8	341.9
15°	373.1	364.0	338.7	324.4	319.2
17.5°	360.8	347.8	319.2	303.6	295.8
20°	347.1	328.9	298.4	279.5	271.7
22.5°	330.9	310.7	276.3	256.1	247.7
25°	315.3	289.9	254.2	232.1	221.7
27.5°	295.8	269.1	230.8	208.0	197.0
30°	279.5	249.0	208.7	183.3	172.9
32.5°	260.0	228.2	185.9	158.0	148.2
35°	242.5	207.4	163.2	133.9	121.6
37.5°	223.6	187.2	140.4	109.9	98.2
40°	203.5	167.1	119.6	85.8	72.8
42.5°	185.3	146.9	98.8	63.7	50.7
45°	163.8	127.4	80.6	42.9	28.0
47.5°	144.3	109.2	61.1	24.1	15.0
50°	123.5	90.4	43.6	12.4	9.8
52.5°	102.1	72.2	28.6	8.5	7.8
55°	81.3	55.9	16.3	6.5	6.5
57.5°	61.1	40.3	8.5	5.2	4.6
60°	42.9	26.7	5.2	3.9	3.3
62.5°	24.7	15.6	3.9	2.6	2.6
65°	9.8	7.2	2.6	1.3	1.3
67.5°	0.7	2.0	1.3	0.7	0.7
70°	0.0	0.0	0.7	0.7	0.7
72.5°	0.0	0.0	0.7	0.7	0.7
75°	0.0	0.0	0.0	0.0	0.7
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	10.60	11.77	10.96	12.08	12.40	0.00	0.00	0.00	0.00	0.00
	3H	10.44	11.47	10.82	11.80	12.17	0.00	0.00	0.00	0.00	0.00
	4H	10.35	11.31	10.76	11.66	12.04	0.00	0.00	0.00	0.00	0.00
	6H	10.26	11.13	10.67	11.50	11.90	0.00	0.00	0.00	0.00	0.00
	8H	10.21	11.03	10.64	11.42	11.83	0.00	0.00	0.00	0.00	0.00
	12H	10.16	10.94	10.59	11.33	11.76	0.00	0.00	0.00	0.00	0.00
4H	2H	10.36	11.31	10.76	11.66	12.05	0.00	0.00	0.00	0.00	0.00
	3H	10.19	10.96	10.60	11.37	11.77	0.00	0.00	0.00	0.00	0.00
	4H	10.09	10.77	10.52	11.19	11.64	0.00	0.00	0.00	0.00	0.00
	6H	9.99	10.57	10.46	11.02	11.49	0.00	0.00	0.00	0.00	0.00
	8H	9.92	10.47	10.40	10.92	11.39	0.00	0.00	0.00	0.00	0.00
	12H	9.87	10.34	10.36	10.83	11.31	0.00	0.00	0.00	0.00	0.00
8H	4H	9.92	10.47	10.40	10.92	11.39	0.00	0.00	0.00	0.00	0.00
	6H	9.81	10.25	10.31	10.75	11.23	0.00	0.00	0.00	0.00	0.00
	8H	9.74	10.13	10.26	10.65	11.15	0.00	0.00	0.00	0.00	0.00
	12H	9.68	10.03	10.20	10.53	11.10	0.00	0.00	0.00	0.00	0.00
12H	4H	9.87	10.34	10.36	10.83	11.31	0.00	0.00	0.00	0.00	0.00
	6H	9.74	10.13	10.26	10.65	11.15	0.00	0.00	0.00	0.00	0.00
	8H	9.68	10.03	10.20	10.53	11.10	0.00	0.00	0.00	0.00	0.00