

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: P1059714

Luminaire Tested: S123RDR-H560D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059714
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D935-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

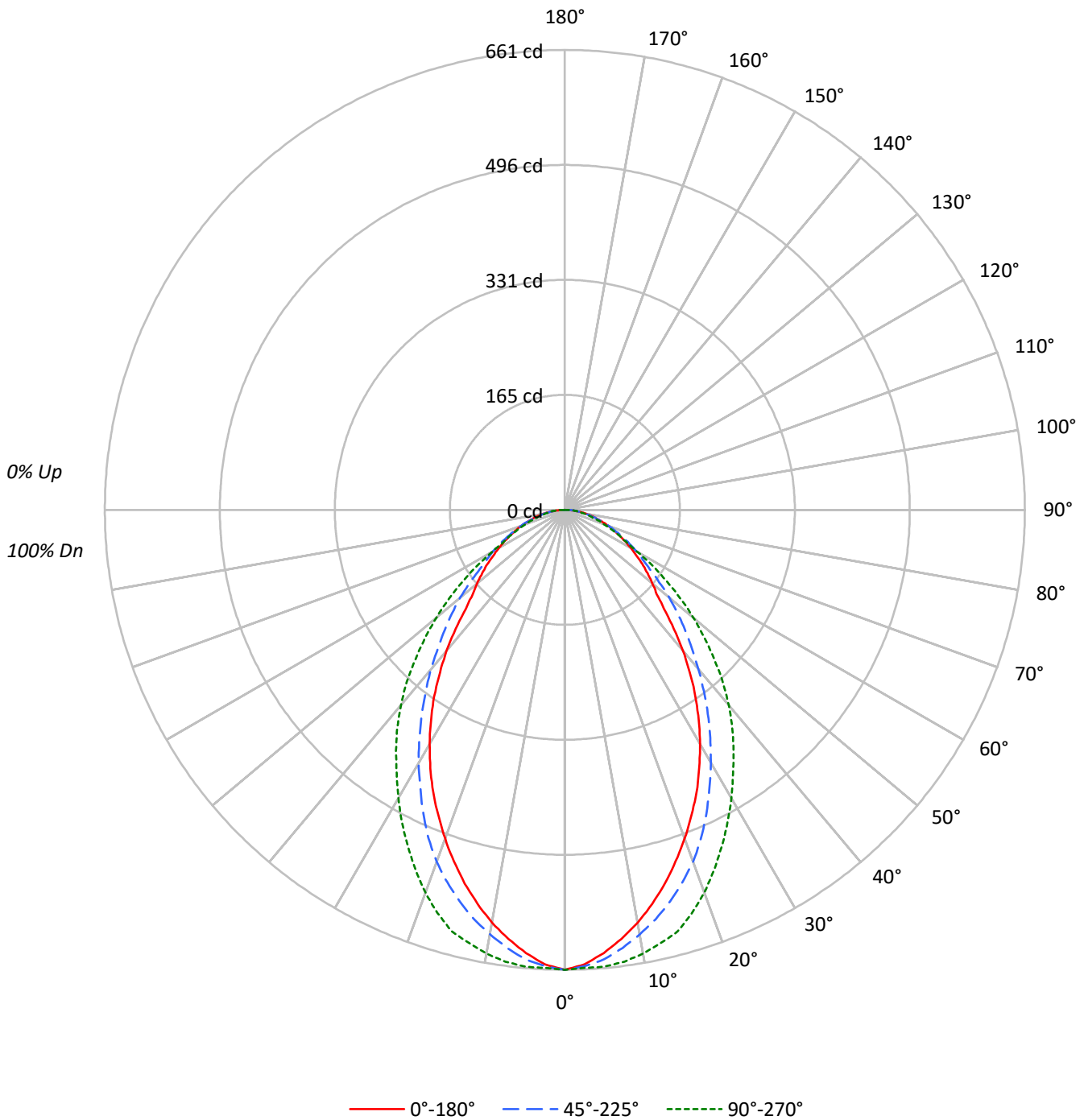
Lumens per Lamp: N/A
Luminaire Lumens: 1161.7 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7763	7763	7763
5°	7538	7645	7767
10°	7184	7388	7721
15°	6758	7090	7622
20°	6286	6725	7316
25°	5802	6237	6915
30°	5269	5693	6488
35°	4690	5139	6059
40°	4047	4579	5616
45°	3345	4054	5037
50°	3003	3575	4397
55°	2784	3052	3646
60°	2565	2778	2792
65°	2387	2515	2339
70°	2245	2287	2050
75°	2119	2037	1806
80°	2002	1846	1691
85°	1913	2075	1913

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5037 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	5.3
10°-20°	165.0	14.2
20°-30°	223.2	19.2
30°-40°	229.3	19.7
40°-50°	192.6	16.6
50°-60°	138.1	11.9
60°-70°	87.9	7.6
70°-80°	48.3	4.2
80°-90°	16.1	1.4
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°	449.4	38.7
0°-40°	678.7	58.4
0°-60°	1009.4	86.9
0°-90°	1161.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1161.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	661	661	661	661	661	
5°	640	651	649	653	659	60
15°	556	571	583	608	627	156
25°	448	465	481	508	534	205
35°	327	345	358	390	423	204
45°	201	219	244	279	303	159
55°	136	139	149	169	178	121
65°	86	91	90	85	84	86
75°	47	51	45	42	40	50
85°	14	15	15	16	14	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	661.1	661.1	661.1	661.1	661.1
2.5°	653.7	662.9	656.6	657.2	658.9
5°	639.5	650.9	648.6	653.2	658.9
7.5°	621.9	634.4	635.0	645.8	654.9
10°	602.5	615.6	619.6	636.1	647.5
12.5°	579.8	594.0	602.5	623.0	637.8
15°	555.9	571.2	583.2	608.2	627.0
17.5°	529.7	546.2	561.6	588.3	607.7
20°	503.0	520.6	538.2	563.3	585.5
22.5°	475.1	493.3	511.5	536.0	560.4
25°	447.8	464.9	481.4	507.5	533.7
27.5°	418.2	435.8	450.1	479.1	506.4
30°	388.6	406.2	419.9	450.1	478.5
32.5°	357.9	376.1	388.6	419.9	449.5
35°	327.2	344.8	358.5	390.3	422.7
37.5°	294.7	314.1	327.7	363.6	395.4
40°	264.0	282.2	298.7	336.3	366.4
42.5°	232.1	250.9	269.7	308.4	336.3
45°	201.4	219.1	244.1	279.4	303.3
47.5°	179.2	190.6	219.6	249.2	272.0
50°	164.4	169.0	195.7	221.9	240.7
52.5°	149.6	153.1	171.3	195.2	209.4
55°	136.0	138.8	149.1	169.0	178.1
57.5°	121.2	124.0	132.6	143.9	149.1
60°	109.2	111.5	118.3	120.1	118.9
62.5°	97.3	100.7	104.1	100.1	98.4
65°	85.9	91.0	90.5	85.3	84.2
67.5°	75.7	80.8	77.9	72.8	71.1
70°	65.4	70.6	66.6	61.4	59.7
72.5°	55.8	61.4	55.2	50.6	49.5
75°	46.7	51.2	44.9	41.5	39.8
77.5°	38.1	41.5	35.8	33.0	31.9
80°	29.6	31.9	27.3	25.6	25.0
82.5°	21.6	22.8	19.9	21.1	20.5
85°	14.2	14.8	15.4	15.9	14.2
87.5°	6.8	9.7	9.7	9.1	7.4
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	14.30	15.77	14.67	16.08	16.39	15.37	16.84	15.74	17.15	17.46
	3H	16.00	17.31	16.38	17.64	18.00	16.46	17.77	16.84	18.10	18.46
	4H	16.66	17.88	17.06	18.23	18.61	16.86	18.09	17.26	18.44	18.82
	6H	17.16	18.29	17.57	18.66	19.05	17.17	18.30	17.58	18.67	19.06
	8H	17.33	18.41	17.76	18.80	19.20	17.30	18.38	17.73	18.77	19.17
	12H	17.46	18.49	17.89	18.87	19.30	17.42	18.46	17.86	18.84	19.27
4H	2H	14.91	16.13	15.31	16.48	16.86	15.78	17.01	16.18	17.35	17.73
	3H	16.83	17.85	17.25	18.25	18.66	17.09	18.11	17.51	18.51	18.92
	4H	17.65	18.56	18.08	18.98	19.42	17.61	18.53	18.05	18.95	19.39
	6H	18.29	19.09	18.75	19.53	20.00	18.05	18.84	18.50	19.29	19.75
	8H	18.52	19.26	18.98	19.71	20.17	18.24	18.98	18.70	19.43	19.89
	12H	18.69	19.35	19.17	19.83	20.30	18.42	19.08	18.90	19.56	20.03
8H	4H	17.88	18.63	18.35	19.07	19.54	17.86	18.60	18.32	19.05	19.52
	6H	18.67	19.29	19.17	19.78	20.26	18.41	19.02	18.91	19.51	19.99
	8H	18.98	19.54	19.50	20.05	20.54	18.68	19.24	19.20	19.75	20.24
	12H	19.25	19.74	19.76	20.23	20.80	18.98	19.47	19.49	19.96	20.52
12H	4H	17.89	18.56	18.38	19.04	19.51	17.89	18.55	18.37	19.03	19.50
	6H	18.71	19.26	19.22	19.77	20.26	18.46	19.01	18.97	19.52	20.01
	8H	19.08	19.57	19.59	20.06	20.63	18.80	19.29	19.31	19.78	20.35