

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: P1060965

Luminaire Tested: S124RDR-H795D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060965
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D835-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

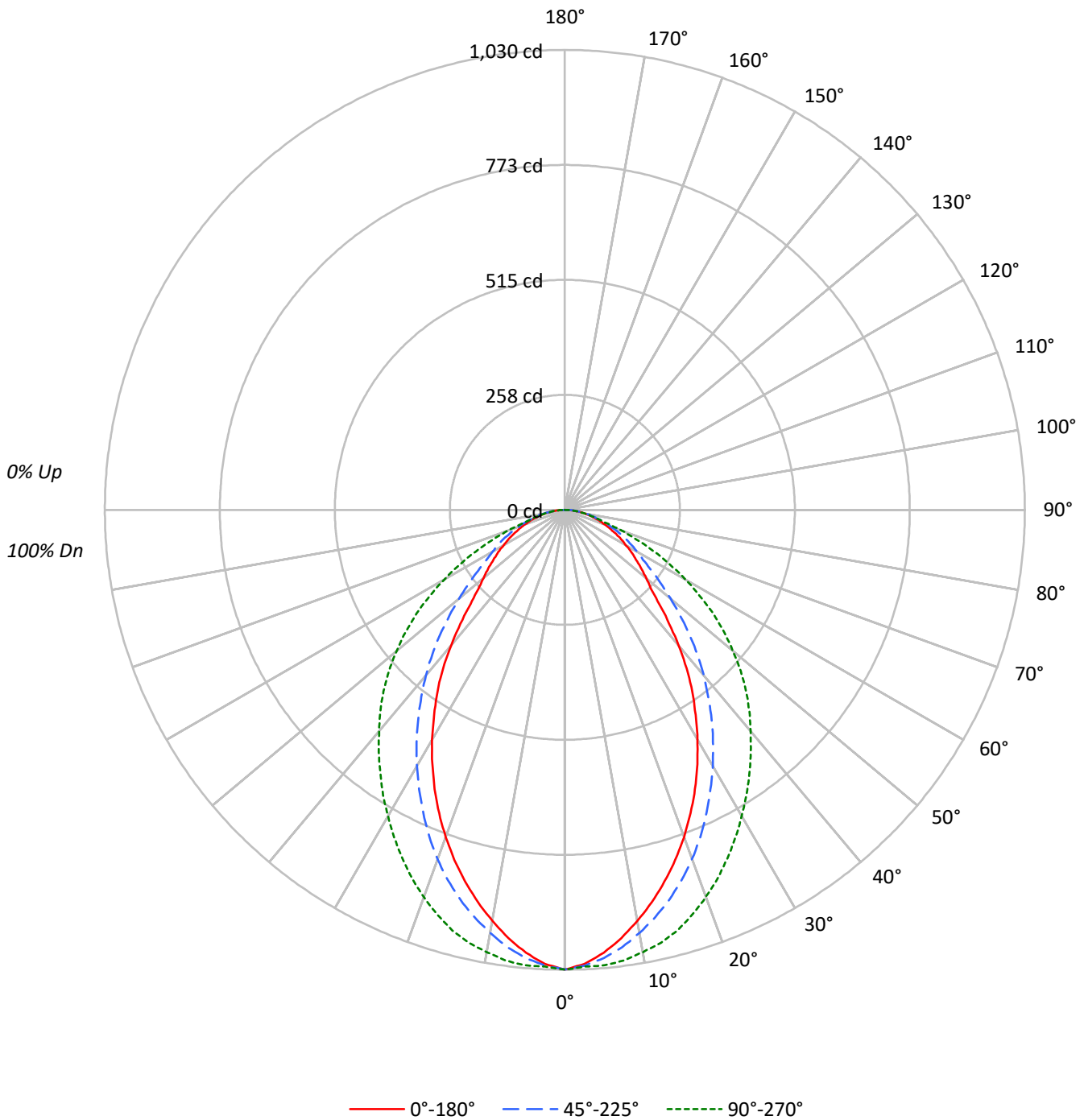
Lumens per Lamp: N/A
Luminaire Lumens: 1889.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8865	8865	8865
5°	8608	8710	8851
10°	8173	8413	8795
15°	7683	8057	8690
20°	7147	7631	8457
25°	6553	7124	8180
30°	5906	6585	7872
35°	5229	6024	7575
40°	4445	5438	7271
45°	3639	4804	6990
50°	3186	4125	6579
55°	2928	3557	6086
60°	2714	3202	5366
65°	2543	3007	4493
70°	2384	2752	3371
75°	2242	2515	2455
80°	2078	2306	2078
85°	1887	2253	1798

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6990 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.1	5.0
10°-20°	256.0	13.6
20°-30°	349.9	18.5
30°-40°	367.7	19.5
40°-50°	319.1	16.9
50°-60°	240.7	12.7
60°-70°	156.0	8.3
70°-80°	80.1	4.2
80°-90°	24.3	1.3
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°	701.0	37.1
0°-40°	1068.8	56.6
0°-60°	1628.6	86.2
0°-90°	1889.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	996	1009	1008	1016	1024	93
15°	862	883	904	945	975	242
25°	690	714	750	807	861	316
35°	497	525	573	650	721	309
45°	299	327	394	493	574	235
55°	195	200	237	336	405	175
65°	125	128	148	179	220	124
75°	67	76	76	76	74	72
85°	19	24	23	22	18	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1029.5	1029.5	1029.5	1029.5	1029.5
2.5°	1017.6	1030.4	1021.3	1023.1	1024.0
5°	995.8	1009.4	1007.6	1015.8	1024.0
7.5°	967.5	983.9	987.6	1004.0	1017.6
10°	934.7	952.9	962.1	988.5	1005.8
12.5°	900.1	918.3	934.7	968.4	993.0
15°	861.8	882.8	903.8	944.7	974.8
17.5°	821.8	843.6	870.0	914.7	950.2
20°	779.9	801.7	832.7	881.0	922.9
22.5°	735.2	759.8	792.6	844.5	893.7
25°	689.7	714.3	749.8	807.2	860.9
27.5°	642.3	667.8	706.1	769.8	827.2
30°	594.0	621.3	662.3	729.7	791.7
32.5°	544.8	574.0	617.7	689.7	757.1
35°	497.4	524.8	573.0	649.6	720.6
37.5°	448.2	475.6	527.5	610.4	684.2
40°	395.4	425.5	483.8	569.4	646.8
42.5°	346.2	376.3	439.1	530.2	611.3
45°	298.8	327.1	394.5	492.9	574.0
47.5°	262.4	282.4	349.8	456.4	533.9
50°	237.8	246.9	307.9	416.3	491.1
52.5°	215.9	223.2	269.7	376.3	449.1
55°	195.0	200.4	236.9	336.2	405.4
57.5°	176.7	179.5	207.7	296.1	358.0
60°	157.6	161.3	185.9	255.1	311.6
62.5°	142.1	143.9	166.7	215.9	265.1
65°	124.8	127.5	147.6	178.6	220.5
67.5°	109.3	113.9	127.5	145.8	174.0
70°	94.7	101.1	109.3	118.4	133.9
72.5°	81.1	88.4	92.9	96.6	93.8
75°	67.4	75.6	75.6	76.5	73.8
77.5°	54.7	62.0	61.0	60.1	56.5
80°	41.9	48.3	46.5	45.6	41.9
82.5°	31.0	35.5	33.7	32.8	28.2
85°	19.1	23.7	22.8	21.9	18.2
87.5°	9.1	13.7	12.8	11.8	8.2
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	14.08	15.57	14.45	15.88	16.20	17.82	19.31	18.19	19.62	19.94
	3H	15.75	17.08	16.13	17.41	17.77	18.95	20.28	19.33	20.61	20.97
	4H	16.42	17.67	16.82	18.02	18.40	19.24	20.49	19.64	20.84	21.22
	6H	16.93	18.08	17.34	18.45	18.84	19.44	20.60	19.86	20.96	21.36
	8H	17.10	18.20	17.53	18.59	18.99	19.50	20.60	19.93	20.99	21.39
	12H	17.22	18.27	17.65	18.65	19.08	19.53	20.58	19.96	20.96	21.39
4H	2H	14.88	16.13	15.28	16.47	16.85	17.99	19.24	18.39	19.59	19.97
	3H	16.75	17.78	17.16	18.18	18.59	19.32	20.35	19.73	20.75	21.16
	4H	17.55	18.48	17.99	18.90	19.34	19.73	20.67	20.17	21.08	21.52
	6H	18.20	19.01	18.65	19.45	19.91	20.06	20.87	20.51	21.31	21.77
	8H	18.42	19.18	18.88	19.62	20.09	20.15	20.91	20.61	21.35	21.82
	12H	18.58	19.26	19.07	19.74	20.21	20.22	20.90	20.71	21.38	21.85
8H	4H	17.90	18.66	18.36	19.10	19.57	19.87	20.62	20.33	21.07	21.54
	6H	18.69	19.32	19.19	19.81	20.29	20.29	20.91	20.78	21.40	21.88
	8H	19.01	19.57	19.52	20.08	20.57	20.44	21.01	20.96	21.52	22.00
	12H	19.27	19.77	19.78	20.26	20.83	20.58	21.08	21.09	21.57	22.14
12H	4H	17.93	18.61	18.41	19.08	19.56	19.87	20.55	20.36	21.03	21.50
	6H	18.75	19.31	19.27	19.82	20.31	20.31	20.87	20.82	21.38	21.87
	8H	19.14	19.63	19.65	20.13	20.69	20.52	21.01	21.03	21.51	22.07