

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: P1060992

Luminaire Tested: S124RDR-H795D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060992
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-H795D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

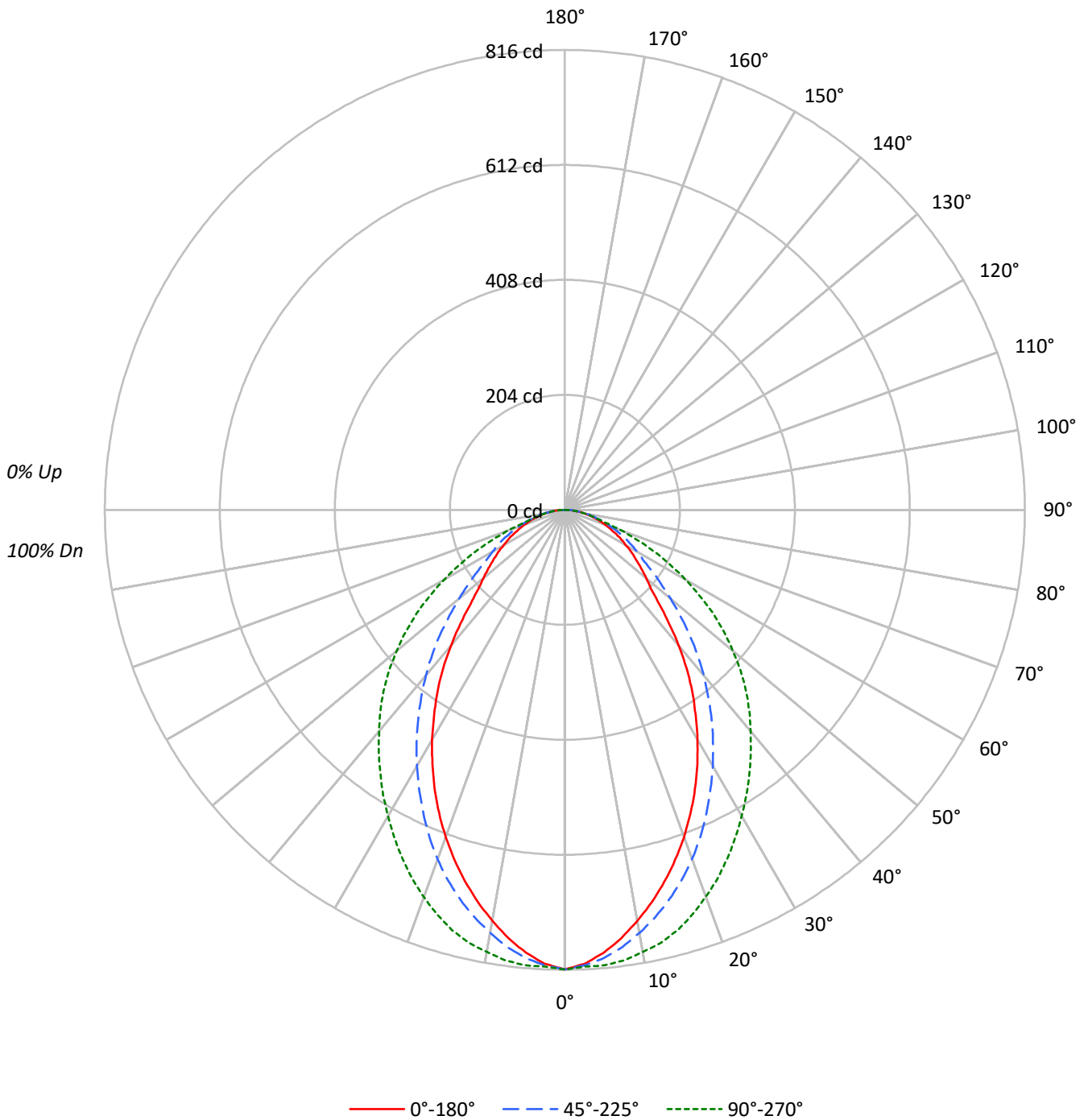
Lumens per Lamp: N/A
Luminaire Lumens: 1496.4 lumens
Efficiency: N/A
Efficacy: 63.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7022	7022	7022
5°	6818	6900	7012
10°	6475	6664	6967
15°	6086	6382	6884
20°	5661	6044	6700
25°	5191	5644	6480
30°	4679	5217	6236
35°	4143	4773	6001
40°	3521	4308	5760
45°	2883	3806	5537
50°	2524	3267	5211
55°	2318	2816	4822
60°	2151	2535	4250
65°	2015	2382	3560
70°	1891	2180	2671
75°	1777	1993	1946
80°	1646	1825	1646
85°	1502	1778	1423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5537 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	5.0
10°-20°	202.8	13.6
20°-30°	277.2	18.5
30°-40°	291.3	19.5
40°-50°	252.8	16.9
50°-60°	190.7	12.7
60°-70°	123.6	8.3
70°-80°	63.4	4.2
80°-90°	19.2	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°	555.3	37.1
0°-40°	846.7	56.6
0°-60°	1290.2	86.2
0°-90°	1496.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1496.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	789	800	798	805	811	74
15°	683	699	716	748	772	191
25°	546	566	594	639	682	250
35°	394	416	454	515	571	245
45°	237	259	312	390	455	186
55°	154	159	188	266	321	139
65°	99	101	117	142	175	98
75°	53	60	60	61	58	57
85°	15	19	18	17	14	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	815.5	815.5	815.5	815.5	815.5
2.5°	806.1	816.3	809.0	810.5	811.2
5°	788.8	799.7	798.2	804.7	811.2
7.5°	766.5	779.4	782.3	795.3	806.1
10°	740.5	754.9	762.1	783.1	796.8
12.5°	713.0	727.5	740.5	767.2	786.7
15°	682.7	699.3	715.9	748.4	772.2
17.5°	651.0	668.3	689.2	724.6	752.7
20°	617.8	635.1	659.6	697.9	731.1
22.5°	582.4	601.9	627.9	669.0	708.0
25°	546.3	565.8	594.0	639.4	682.0
27.5°	508.8	529.0	559.3	609.8	655.3
30°	470.6	492.2	524.7	578.1	627.2
32.5°	431.6	454.7	489.3	546.3	599.7
35°	394.1	415.7	454.0	514.6	570.9
37.5°	355.1	376.7	417.9	483.5	542.0
40°	313.2	337.0	383.2	451.1	512.4
42.5°	274.2	298.1	347.9	420.0	484.3
45°	236.7	259.1	312.5	390.4	454.7
47.5°	207.9	223.7	277.1	361.6	422.9
50°	188.4	195.6	243.9	329.8	389.0
52.5°	171.0	176.8	213.6	298.1	355.8
55°	154.4	158.8	187.6	266.3	321.2
57.5°	140.0	142.2	164.5	234.6	283.6
60°	124.9	127.7	147.2	202.1	246.8
62.5°	112.6	114.0	132.1	171.0	210.0
65°	98.9	101.0	116.9	141.5	174.7
67.5°	86.6	90.2	101.0	115.5	137.8
70°	75.1	80.1	86.6	93.8	106.1
72.5°	64.2	70.0	73.6	76.5	74.3
75°	53.4	59.9	59.9	60.6	58.5
77.5°	43.3	49.1	48.4	47.6	44.7
80°	33.2	38.3	36.8	36.1	33.2
82.5°	24.5	28.1	26.7	26.0	22.4
85°	15.2	18.8	18.0	17.3	14.4
87.5°	7.2	10.8	10.1	9.4	6.5
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	13.28	14.76	13.64	15.08	15.39	17.01	18.50	17.38	18.81	19.13
	3H	14.94	16.28	15.32	16.60	16.97	18.14	19.47	18.52	19.80	20.16
	4H	15.61	16.86	16.01	17.21	17.59	18.44	19.68	18.84	20.03	20.41
	6H	16.12	17.27	16.53	17.64	18.03	18.64	19.79	19.05	20.16	20.55
	8H	16.29	17.39	16.72	17.78	18.18	18.69	19.79	19.12	20.18	20.58
	12H	16.41	17.46	16.84	17.84	18.27	18.72	19.77	19.15	20.16	20.58
4H	2H	14.07	15.32	14.47	15.67	16.04	17.18	18.43	17.58	18.78	19.16
	3H	15.94	16.97	16.35	17.37	17.78	18.51	19.54	18.92	19.95	20.35
	4H	16.74	17.67	17.18	18.09	18.53	18.93	19.86	19.36	20.27	20.71
	6H	17.39	18.20	17.84	18.64	19.10	19.25	20.06	19.70	20.50	20.96
	8H	17.61	18.37	18.07	18.81	19.28	19.34	20.10	19.81	20.54	21.01
	12H	17.77	18.45	18.26	18.93	19.40	19.41	20.09	19.90	20.57	21.04
8H	4H	17.09	17.85	17.56	18.29	18.76	19.06	19.82	19.52	20.26	20.73
	6H	17.88	18.51	18.38	19.00	19.48	19.48	20.10	19.98	20.59	21.07
	8H	18.20	18.76	18.71	19.27	19.76	19.64	20.20	20.15	20.71	21.20
	12H	18.46	18.96	18.97	19.45	20.02	19.77	20.27	20.28	20.76	21.33
12H	4H	17.12	17.80	17.60	18.28	18.75	19.06	19.74	19.55	20.22	20.69
	6H	17.94	18.50	18.46	19.02	19.50	19.50	20.06	20.01	20.57	21.06
	8H	18.33	18.82	18.84	19.32	19.88	19.71	20.21	20.22	20.70	21.26