

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: P1060722

Luminaire Tested: S124RDR-H1195D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060722
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-H1195D835-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

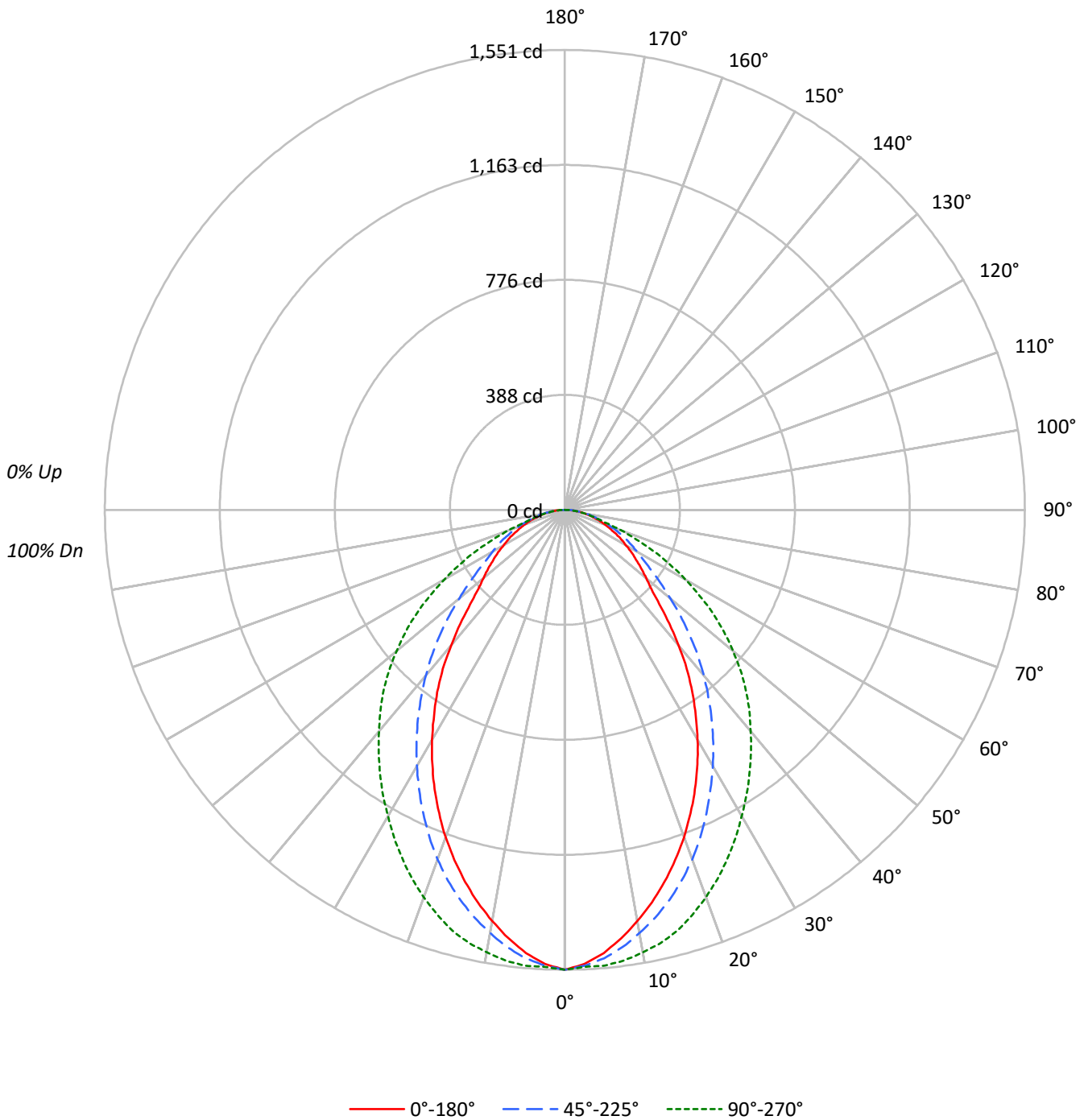
Lumens per Lamp: N/A
Luminaire Lumens: 2845.9 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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										
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																				
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°	13355	13355	13355
5°	12968	13122	13335
10°	12313	12674	13250
15°	11575	12138	13092
20°	10767	11496	12741
25°	9872	10733	12323
30°	8898	9921	11859
35°	7878	9075	11413
40°	6696	8192	10954
45°	5483	7237	10530
50°	4799	6215	9911
55°	4409	5358	9170
60°	4089	4822	8084
65°	3831	4530	6767
70°	3593	4147	5081
75°	3380	3790	3700
80°	3129	3471	3129
85°	2845	3389	2717

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10530 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.3	5.0
10°-20°	385.7	13.6
20°-30°	527.1	18.5
30°-40°	554.0	19.5
40°-50°	480.8	16.9
50°-60°	362.7	12.7
60°-70°	235.1	8.3
70°-80°	120.7	4.2
80°-90°	36.5	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°	1056.1	37.1
0°-40°	1610.2	56.6
0°-60°	2453.6	86.2
0°-90°	2845.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2845.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1551	1551	1551	1551	1551	
5°	1500	1521	1518	1530	1543	140
15°	1298	1330	1362	1423	1469	364
25°	1039	1076	1130	1216	1297	476
35°	749	791	863	979	1086	466
45°	450	493	594	742	865	354
55°	294	302	357	506	611	264
65°	188	192	222	269	332	187
75°	102	114	114	115	111	108
85°	29	36	34	33	28	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1550.9	1550.9	1550.9	1550.9	1550.9
2.5°	1533.1	1552.3	1538.6	1541.3	1542.7
5°	1500.2	1520.7	1518.0	1530.4	1542.7
7.5°	1457.6	1482.3	1487.8	1512.5	1533.1
10°	1408.2	1435.6	1449.4	1489.2	1515.3
12.5°	1356.0	1383.5	1408.2	1459.0	1496.0
15°	1298.4	1330.0	1361.5	1423.3	1468.6
17.5°	1238.0	1270.9	1310.7	1378.0	1431.5
20°	1174.9	1207.8	1254.5	1327.2	1390.4
22.5°	1107.6	1144.7	1194.1	1272.3	1346.4
25°	1039.0	1076.0	1129.6	1216.0	1297.0
27.5°	967.6	1006.1	1063.7	1159.8	1246.2
30°	894.9	936.1	997.8	1099.4	1192.7
32.5°	820.8	864.7	930.6	1039.0	1140.6
35°	749.4	790.6	863.3	978.6	1085.7
37.5°	675.3	716.5	794.7	919.6	1030.8
40°	595.7	641.0	728.8	857.8	974.5
42.5°	521.6	566.8	661.6	798.8	921.0
45°	450.2	492.7	594.3	742.5	864.7
47.5°	395.3	425.5	527.0	687.6	804.3
50°	358.2	372.0	463.9	627.2	739.8
52.5°	325.3	336.3	406.3	566.8	676.6
55°	293.7	302.0	356.9	506.5	610.8
57.5°	266.3	270.4	312.9	446.1	539.4
60°	237.4	242.9	280.0	384.3	469.4
62.5°	214.1	216.9	251.2	325.3	399.4
65°	188.0	192.2	222.3	269.0	332.1
67.5°	164.7	171.6	192.2	219.6	262.1
70°	142.7	152.3	164.7	178.4	201.8
72.5°	122.2	133.1	140.0	145.5	141.4
75°	101.6	113.9	113.9	115.3	111.2
77.5°	82.4	93.3	92.0	90.6	85.1
80°	63.1	72.7	70.0	68.6	63.1
82.5°	46.7	53.5	50.8	49.4	42.5
85°	28.8	35.7	34.3	32.9	27.5
87.5°	13.7	20.6	19.2	17.8	12.4
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	15.51	17.00	15.87	17.31	17.62	19.25	20.73	19.61	21.05	21.36
	3H	17.18	18.51	17.55	18.84	19.20	20.37	21.70	20.75	22.03	22.40
	4H	17.84	19.09	18.24	19.44	19.82	20.67	21.92	21.07	22.27	22.65
	6H	18.35	19.50	18.76	19.87	20.26	20.87	22.02	21.28	22.39	22.78
	8H	18.53	19.62	18.95	20.01	20.41	20.92	22.02	21.35	22.41	22.81
	12H	18.64	19.69	19.08	20.08	20.51	20.96	22.01	21.39	22.39	22.82
4H	2H	16.30	17.55	16.70	17.90	18.28	19.41	20.66	19.81	21.01	21.39
	3H	18.17	19.21	18.58	19.61	20.01	20.74	21.78	21.15	22.18	22.58
	4H	18.98	19.91	19.41	20.32	20.76	21.16	22.09	21.59	22.51	22.95
	6H	19.62	20.43	20.08	20.87	21.33	21.48	22.29	21.94	22.73	23.19
	8H	19.84	20.60	20.31	21.04	21.51	21.57	22.33	22.04	22.78	23.24
	12H	20.01	20.68	20.49	21.16	21.63	21.65	22.32	22.13	22.80	23.27
8H	4H	19.32	20.08	19.79	20.53	20.99	21.29	22.05	21.76	22.49	22.96
	6H	20.11	20.74	20.61	21.23	21.71	21.71	22.34	22.21	22.83	23.31
	8H	20.43	20.99	20.95	21.50	21.99	21.87	22.43	22.38	22.94	23.43
	12H	20.70	21.19	21.21	21.68	22.25	22.01	22.50	22.52	23.00	23.56
12H	4H	19.35	20.03	19.84	20.51	20.98	21.30	21.97	21.78	22.45	22.92
	6H	20.17	20.74	20.69	21.25	21.74	21.73	22.29	22.25	22.81	23.29
	8H	20.56	21.06	21.07	21.55	22.11	21.94	22.44	22.45	22.93	23.50