

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: P1060731

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060731
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-H1195D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

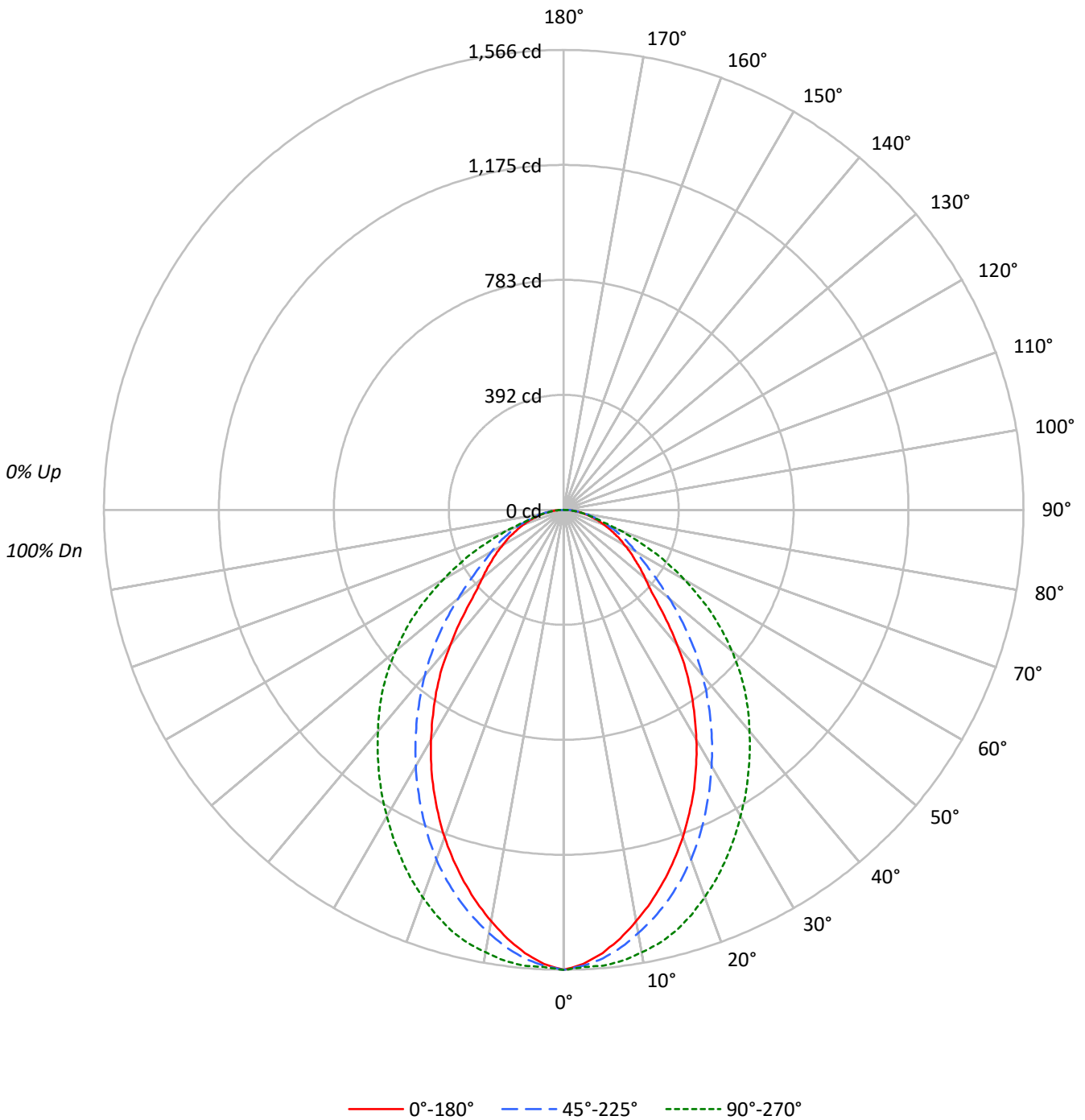
Lumens per Lamp: N/A
Luminaire Lumens: 2874.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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	
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°	13487	13487	13487
5°	13096	13251	13467
10°	12435	12799	13380
15°	11689	12258	13222
20°	10873	11610	12867
25°	9969	10838	12445
30°	8986	10020	11977
35°	7956	9165	11526
40°	6761	8273	11062
45°	5536	7309	10634
50°	4847	6276	10009
55°	4453	5411	9260
60°	4130	4870	8163
65°	3869	4574	6834
70°	3628	4187	5129
75°	3414	3826	3736
80°	3164	3506	3164
85°	2875	3428	2737

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10634 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	5.0
10°-20°	389.5	13.6
20°-30°	532.3	18.5
30°-40°	559.5	19.5
40°-50°	485.5	16.9
50°-60°	366.2	12.7
60°-70°	237.4	8.3
70°-80°	121.9	4.2
80°-90°	36.9	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°	1066.6	37.1
0°-40°	1626.0	56.6
0°-60°	2477.8	86.2
0°-90°	2874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1566	1566	1566	1566	1566	
5°	1515	1536	1533	1545	1558	142
15°	1311	1343	1375	1437	1483	368
25°	1049	1087	1141	1228	1310	481
35°	757	798	872	988	1096	471
45°	455	498	600	750	873	358
55°	297	305	360	512	617	267
65°	190	194	224	272	335	189
75°	103	115	115	116	112	109
85°	29	36	35	33	28	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1566.2	1566.2	1566.2	1566.2	1566.2
2.5°	1548.2	1567.6	1553.8	1556.5	1557.9
5°	1515.0	1535.7	1533.0	1545.4	1557.9
7.5°	1472.0	1496.9	1502.5	1527.4	1548.2
10°	1422.1	1449.8	1463.7	1503.9	1530.2
12.5°	1369.4	1397.1	1422.1	1473.4	1510.8
15°	1311.2	1343.1	1375.0	1437.3	1483.1
17.5°	1250.2	1283.5	1323.7	1391.6	1445.7
20°	1186.5	1219.7	1266.9	1340.3	1404.1
22.5°	1118.5	1156.0	1205.9	1284.9	1359.7
25°	1049.2	1086.7	1140.7	1228.0	1309.8
27.5°	977.2	1016.0	1074.2	1171.2	1258.5
30°	903.7	945.3	1007.7	1110.2	1204.5
32.5°	828.9	873.2	939.7	1049.2	1151.8
35°	756.8	798.4	871.8	988.3	1096.4
37.5°	681.9	723.5	802.5	928.7	1040.9
40°	601.5	647.3	736.0	866.3	984.1
42.5°	526.7	572.4	668.1	806.7	930.0
45°	454.6	497.6	600.2	749.9	873.2
47.5°	399.2	429.7	532.2	694.4	812.2
50°	361.8	375.6	468.5	633.4	747.1
52.5°	328.5	339.6	410.3	572.4	683.3
55°	296.6	304.9	360.4	511.5	616.8
57.5°	268.9	273.1	316.0	450.5	544.7
60°	239.8	245.3	282.8	388.1	474.0
62.5°	216.2	219.0	253.6	328.5	403.3
65°	189.9	194.0	224.5	271.7	335.4
67.5°	166.3	173.3	194.0	221.8	264.7
70°	144.1	153.9	166.3	180.2	203.7
72.5°	123.4	134.4	141.4	146.9	142.8
75°	102.6	115.0	115.0	116.4	112.3
77.5°	83.2	94.3	92.9	91.5	85.9
80°	63.8	73.5	70.7	69.3	63.8
82.5°	47.1	54.1	51.3	49.9	43.0
85°	29.1	36.0	34.7	33.3	27.7
87.5°	13.9	20.8	19.4	18.0	12.5
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	15.54	17.03	15.91	17.34	17.66	19.28	20.77	19.65	21.08	21.40
	3H	17.21	18.54	17.59	18.87	19.23	20.41	21.74	20.78	22.07	22.43
	4H	17.88	19.13	18.28	19.47	19.85	20.70	21.95	21.10	22.30	22.68
	6H	18.39	19.54	18.80	19.91	20.30	20.90	22.06	21.31	22.42	22.81
	8H	18.56	19.66	18.99	20.05	20.45	20.96	22.05	21.38	22.44	22.85
	12H	18.68	19.73	19.11	20.11	20.54	20.99	22.04	21.42	22.42	22.85
4H	2H	16.33	17.58	16.73	17.93	18.31	19.45	20.69	19.85	21.04	21.42
	3H	18.21	19.24	18.62	19.64	20.04	20.78	21.81	21.19	22.21	22.61
	4H	19.01	19.94	19.44	20.36	20.80	21.19	22.12	21.63	22.54	22.98
	6H	19.65	20.46	20.11	20.91	21.37	21.51	22.32	21.97	22.77	23.23
	8H	19.88	20.63	20.34	21.08	21.55	21.61	22.37	22.07	22.81	23.28
	12H	20.04	20.72	20.53	21.20	21.67	21.68	22.36	22.16	22.84	23.31
8H	4H	19.36	20.12	19.82	20.56	21.03	21.33	22.08	21.79	22.53	23.00
	6H	20.15	20.77	20.65	21.27	21.74	21.75	22.37	22.24	22.86	23.34
	8H	20.47	21.03	20.98	21.54	22.03	21.90	22.46	22.42	22.97	23.46
	12H	20.73	21.23	21.24	21.72	22.29	22.04	22.54	22.55	23.03	23.60
12H	4H	19.39	20.06	19.87	20.54	21.01	21.33	22.01	21.81	22.49	22.96
	6H	20.21	20.77	20.73	21.28	21.77	21.77	22.33	22.28	22.84	23.33
	8H	20.60	21.09	21.11	21.58	22.15	21.98	22.47	22.49	22.96	23.53