

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: P1060324

Luminaire Tested: S124RDR-S1195D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060324  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1195D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

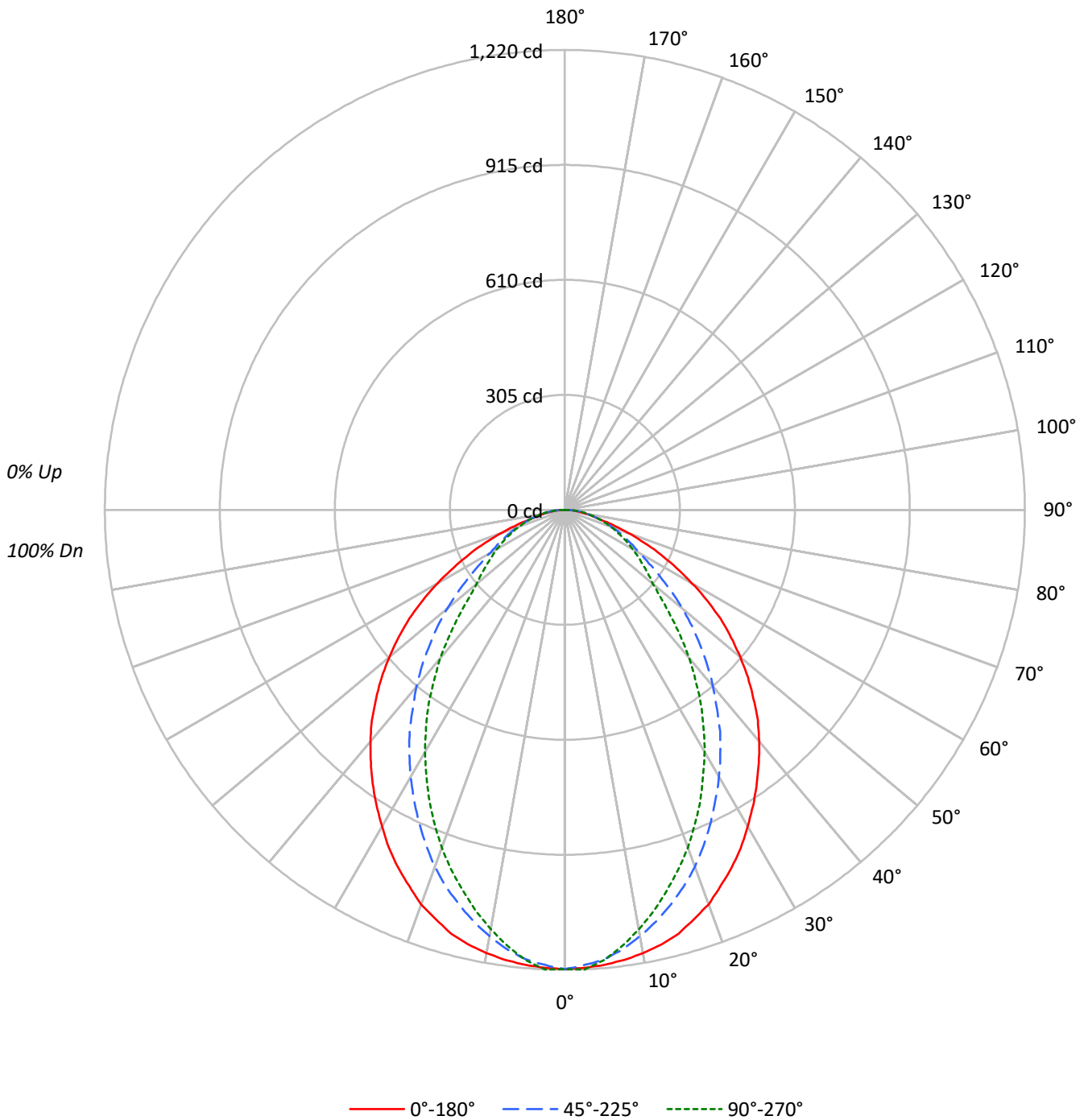
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2349.6 lumens  
Efficiency: N/A  
Efficacy: 56.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44			44	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36			36	
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30			30	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10493	10493	10493
5°	10471	10348	10360
10°	10442	10042	9879
15°	10378	9663	9319
20°	10208	9237	8739
25°	9945	8694	8081
30°	9639	8130	7375
35°	9333	7541	6623
40°	9014	6873	5778
45°	8615	6173	4830
50°	8133	5448	4086
55°	7567	4623	3783
60°	6708	3922	3575
65°	5717	3619	3384
70°	4471	3354	3208
75°	3048	3098	3098
80°	2628	2911	2980
85°	2263	2826	3112

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8615 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.4	4.8
10°-20°	307.9	13.1
20°-30°	427.4	18.2
30°-40°	458.2	19.5
40°-50°	405.9	17.3
50°-60°	305.9	13.0
60°-70°	198.1	8.4
70°-80°	101.7	4.3
80°-90°	31.2	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°	848.7	36.1
0°-40°	1306.9	55.6
0°-60°	2018.7	85.9
0°-90°	2349.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2349.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1211	1213	1197	1198	1198	115
15°	1164	1138	1084	1057	1045	327
25°	1047	991	915	866	850	482
35°	888	808	717	653	630	555
45°	707	616	507	428	397	545
55°	504	420	308	259	252	448
65°	281	226	178	168	166	278
75°	92	96	93	93	93	108
85°	23	24	29	32	32	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1218.5	1218.5	1218.5	1218.5	1218.5
2.5°	1215.7	1220.0	1208.5	1217.1	1220.0
5°	1211.4	1212.8	1197.1	1198.5	1198.5
7.5°	1204.2	1201.4	1175.6	1168.4	1167.0
10°	1194.2	1185.6	1148.4	1134.1	1129.8
12.5°	1181.3	1165.6	1118.3	1098.3	1089.7
15°	1164.1	1138.3	1083.9	1056.7	1045.3
17.5°	1138.3	1105.4	1048.1	1013.8	1000.9
20°	1114.0	1069.6	1008.0	965.1	953.6
22.5°	1079.6	1032.4	962.2	916.4	902.1
25°	1046.7	990.9	915.0	866.3	850.5
27.5°	1010.9	947.9	866.3	814.7	794.7
30°	969.4	902.1	817.6	763.2	741.7
32.5°	929.3	857.7	767.5	707.4	684.4
35°	887.8	807.6	717.4	652.9	630.0
37.5°	844.8	760.3	661.5	598.5	568.5
40°	801.9	713.1	611.4	539.8	514.0
42.5°	757.5	664.4	559.9	485.4	452.5
45°	707.4	615.7	506.9	428.1	396.6
47.5°	658.7	568.5	458.2	372.3	343.7
50°	607.1	518.3	406.7	323.6	305.0
52.5°	555.6	466.8	356.5	286.4	277.8
55°	504.0	419.5	307.9	259.2	252.0
57.5°	446.7	370.9	264.9	234.8	229.1
60°	389.5	317.9	227.7	211.9	207.6
62.5°	333.6	272.1	201.9	189.0	186.1
65°	280.6	226.2	177.6	167.5	166.1
67.5°	229.1	186.1	154.6	148.9	146.1
70°	177.6	148.9	133.2	130.3	127.4
72.5°	131.7	120.3	113.1	111.7	110.3
75°	91.6	95.9	93.1	93.1	93.1
77.5°	73.0	74.5	75.9	77.3	75.9
80°	53.0	57.3	58.7	61.6	60.1
82.5°	37.2	40.1	44.4	45.8	47.3
85°	22.9	24.3	28.6	31.5	31.5
87.5°	10.0	11.5	14.3	17.2	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)