

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: P1060245

Luminaire Tested: S124RDR-S1020D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060245  
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-S1020D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

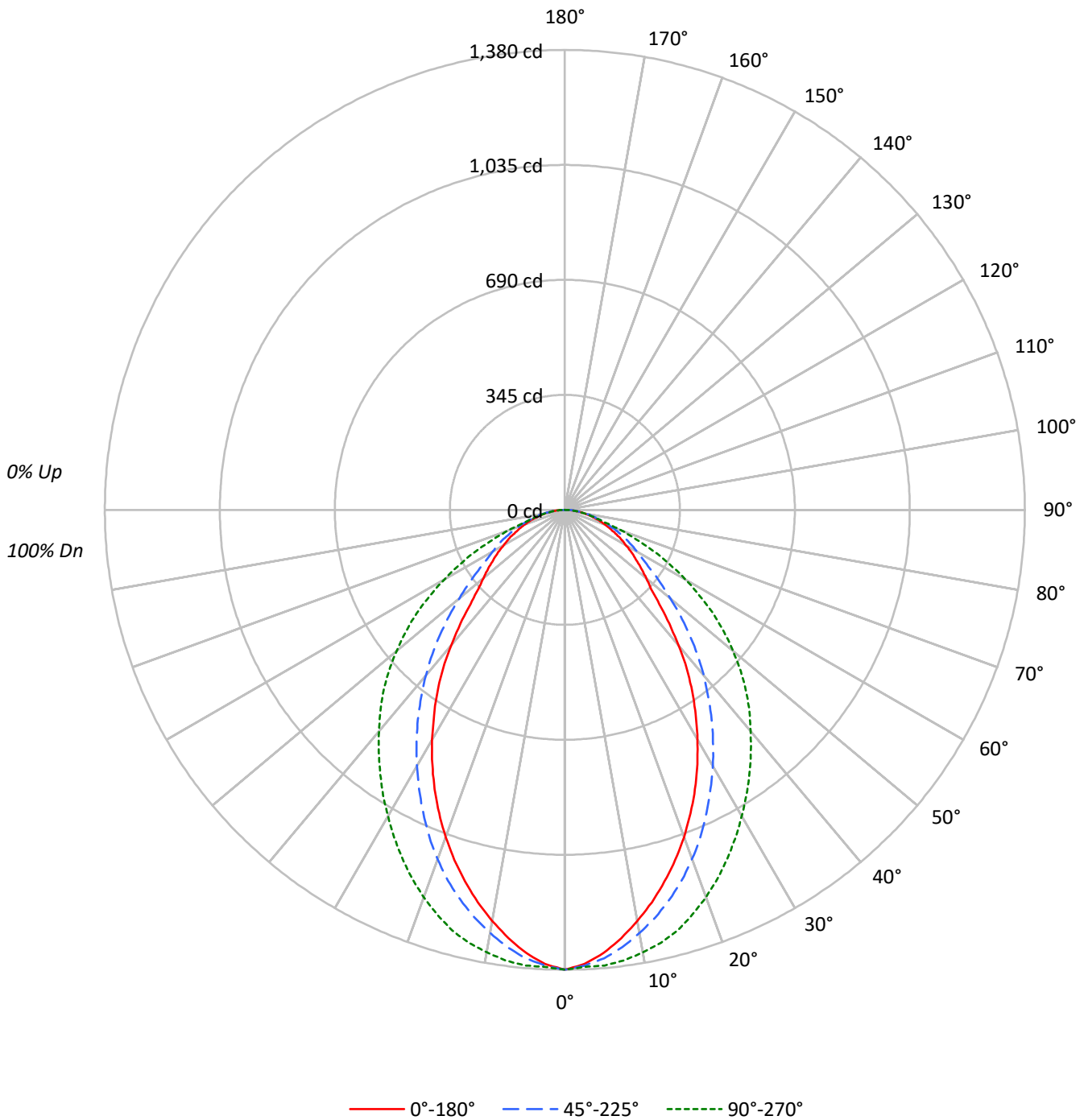
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2531.6 lumens  
Efficiency: N/A  
Efficacy: 72.3 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): 35  
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									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°	11880	11880	11880
5°	11535	11672	11862
10°	10954	11274	11786
15°	10297	10797	11646
20°	9577	10226	11334
25°	8781	9547	10963
30°	7915	8826	10550
35°	7007	8073	10152
40°	5957	7288	9744
45°	4877	6438	9367
50°	4269	5529	8816
55°	3923	4765	8157
60°	3637	4290	7192
65°	3409	4030	6021
70°	3198	3688	4519
75°	3004	3370	3290
80°	2787	3089	2787
85°	2529	3013	2411

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9367 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	5.0
10°-20°	343.1	13.6
20°-30°	468.9	18.5
30°-40°	492.8	19.5
40°-50°	427.7	16.9
50°-60°	322.6	12.7
60°-70°	209.1	8.3
70°-80°	107.3	4.2
80°-90°	32.5	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°	939.5	37.1
0°-40°	1432.3	56.6
0°-60°	2182.6	86.2
0°-90°	2531.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2531.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1334	1353	1350	1361	1372	125
15°	1155	1183	1211	1266	1306	324
25°	924	957	1005	1082	1154	424
35°	667	703	768	870	966	415
45°	400	438	529	660	769	315
55°	261	269	317	450	543	235
65°	167	171	198	239	296	167
75°	90	101	101	103	99	96
85°	26	32	30	29	24	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1379.6	1379.6	1379.6	1379.6	1379.6
2.5°	1363.8	1380.9	1368.6	1371.1	1372.3
5°	1334.5	1352.8	1350.3	1361.3	1372.3
7.5°	1296.6	1318.6	1323.5	1345.4	1363.8
10°	1252.7	1277.1	1289.3	1324.7	1347.9
12.5°	1206.3	1230.7	1252.7	1297.8	1330.8
15°	1155.0	1183.1	1211.1	1266.1	1306.4
17.5°	1101.3	1130.6	1166.0	1225.8	1273.4
20°	1045.1	1074.4	1115.9	1180.6	1236.8
22.5°	985.3	1018.2	1062.2	1131.8	1197.7
25°	924.2	957.2	1004.8	1081.7	1153.8
27.5°	860.7	894.9	946.2	1031.7	1108.6
30°	796.0	832.7	887.6	978.0	1061.0
32.5°	730.1	769.2	827.8	924.2	1014.6
35°	666.6	703.2	768.0	870.5	965.7
37.5°	600.7	637.3	706.9	818.0	916.9
40°	529.9	570.2	648.3	763.1	866.8
42.5°	463.9	504.2	588.5	710.6	819.2
45°	400.5	438.3	528.7	660.5	769.2
47.5°	351.6	378.5	468.8	611.7	715.5
50°	318.7	330.9	412.7	558.0	658.1
52.5°	289.4	299.1	361.4	504.2	601.9
55°	261.3	268.6	317.4	450.5	543.3
57.5°	236.9	240.5	278.4	396.8	479.8
60°	211.2	216.1	249.1	341.9	417.6
62.5°	190.5	192.9	223.4	289.4	355.3
65°	167.3	170.9	197.8	239.3	295.5
67.5°	146.5	152.6	170.9	195.3	233.2
70°	127.0	135.5	146.5	158.7	179.5
72.5°	108.7	118.4	124.5	129.4	125.8
75°	90.3	101.3	101.3	102.6	98.9
77.5°	73.3	83.0	81.8	80.6	75.7
80°	56.2	64.7	62.3	61.0	56.2
82.5°	41.5	47.6	45.2	44.0	37.8
85°	25.6	31.7	30.5	29.3	24.4
87.5°	12.2	18.3	17.1	15.9	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)