

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: P1060233

Luminaire Tested: S124RDR-S1020D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060233
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D835-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

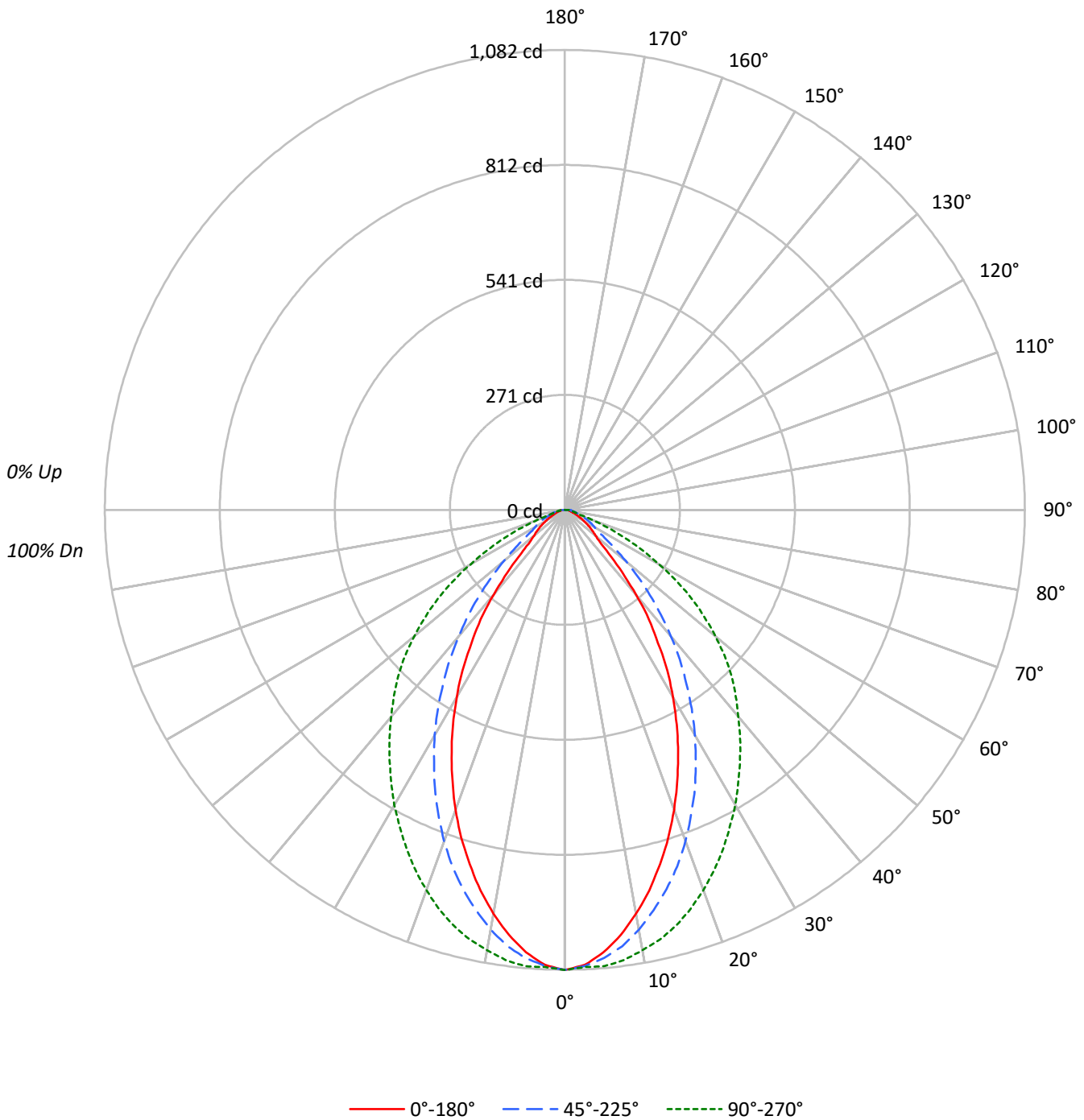
Lumens per Lamp: N/A
Luminaire Lumens: 1532.1 lumens
Efficiency: N/A
Efficacy: 43.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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					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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9322	9322	9322
5°	9033	9148	9315
10°	8439	8767	9200
15°	7699	8237	9025
20°	6883	7603	8722
25°	5987	6872	8366
30°	5051	6085	7974
35°	4018	5238	7552
40°	2923	4364	7138
45°	1767	3446	6760
50°	1263	2496	6189
55°	1072	1689	5465
60°	875	1374	4416
65°	691	1233	3179
70°	579	1035	1674
75°	522	965	845
80°	541	962	838
85°	721	1433	958

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6760 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.7	6.5
10°-20°	261.2	17.0
20°-30°	338.7	22.1
30°-40°	326.0	21.3
40°-50°	242.5	15.8
50°-60°	149.2	9.7
60°-70°	73.3	4.8
70°-80°	28.6	1.9
80°-90°	13.0	0.9
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°	699.5	45.7
0°-40°	1025.5	66.9
0°-60°	1417.2	92.5
0°-90°	1532.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1532.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1045	1061	1058	1068	1078	97
15°	864	891	924	980	1012	241
25°	630	664	723	814	880	288
35°	382	418	498	623	718	239
45°	145	180	283	437	555	121
55°	71	74	112	256	364	64
65°	34	36	60	97	156	35
75°	16	28	29	27	25	17
85°	7	13	14	14	10	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1082.5	1082.5	1082.5	1082.5	1082.5
2.5°	1071.6	1083.7	1074.0	1075.2	1076.4
5°	1045.0	1060.7	1058.3	1068.0	1077.6
7.5°	1008.7	1026.8	1035.3	1054.6	1068.0
10°	965.1	985.7	1002.6	1034.1	1052.2
12.5°	916.8	941.0	965.1	1007.5	1035.3
15°	863.6	891.4	924.0	979.7	1012.3
17.5°	809.1	836.9	879.3	943.4	984.5
20°	751.1	781.3	829.7	901.0	951.8
22.5°	690.6	723.3	776.5	857.5	918.0
25°	630.1	664.0	723.3	814.0	880.5
27.5°	569.7	602.3	666.4	768.0	840.6
30°	508.0	541.8	612.0	718.4	801.9
32.5°	448.7	480.2	555.1	671.2	759.5
35°	382.2	418.5	498.3	622.9	718.4
37.5°	325.3	358.0	443.9	574.5	677.3
40°	260.0	296.3	388.2	527.3	635.0
42.5°	199.6	235.8	335.0	480.2	595.1
45°	145.1	180.2	283.0	436.6	555.1
47.5°	110.1	130.6	232.2	394.3	510.4
50°	94.3	100.4	186.3	348.3	462.0
52.5°	83.5	85.9	145.1	302.4	413.6
55°	71.4	73.8	112.5	256.4	364.0
57.5°	60.5	61.7	90.7	212.9	310.8
60°	50.8	52.0	79.8	170.5	256.4
62.5°	42.3	43.5	71.4	131.8	204.4
65°	33.9	36.3	60.5	96.8	156.0
67.5°	27.8	32.7	50.8	67.7	108.9
70°	23.0	31.4	41.1	47.2	66.5
72.5°	19.4	29.0	35.1	33.9	32.7
75°	15.7	27.8	29.0	26.6	25.4
77.5°	13.3	24.2	24.2	21.8	20.6
80°	10.9	19.4	19.4	19.4	16.9
82.5°	9.7	15.7	16.9	16.9	13.3
85°	7.3	13.3	14.5	14.5	9.7
87.5°	4.8	12.1	13.3	12.1	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)