

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: P1060254

Luminaire Tested: S124RDR-S1020D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060254
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-S1020D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

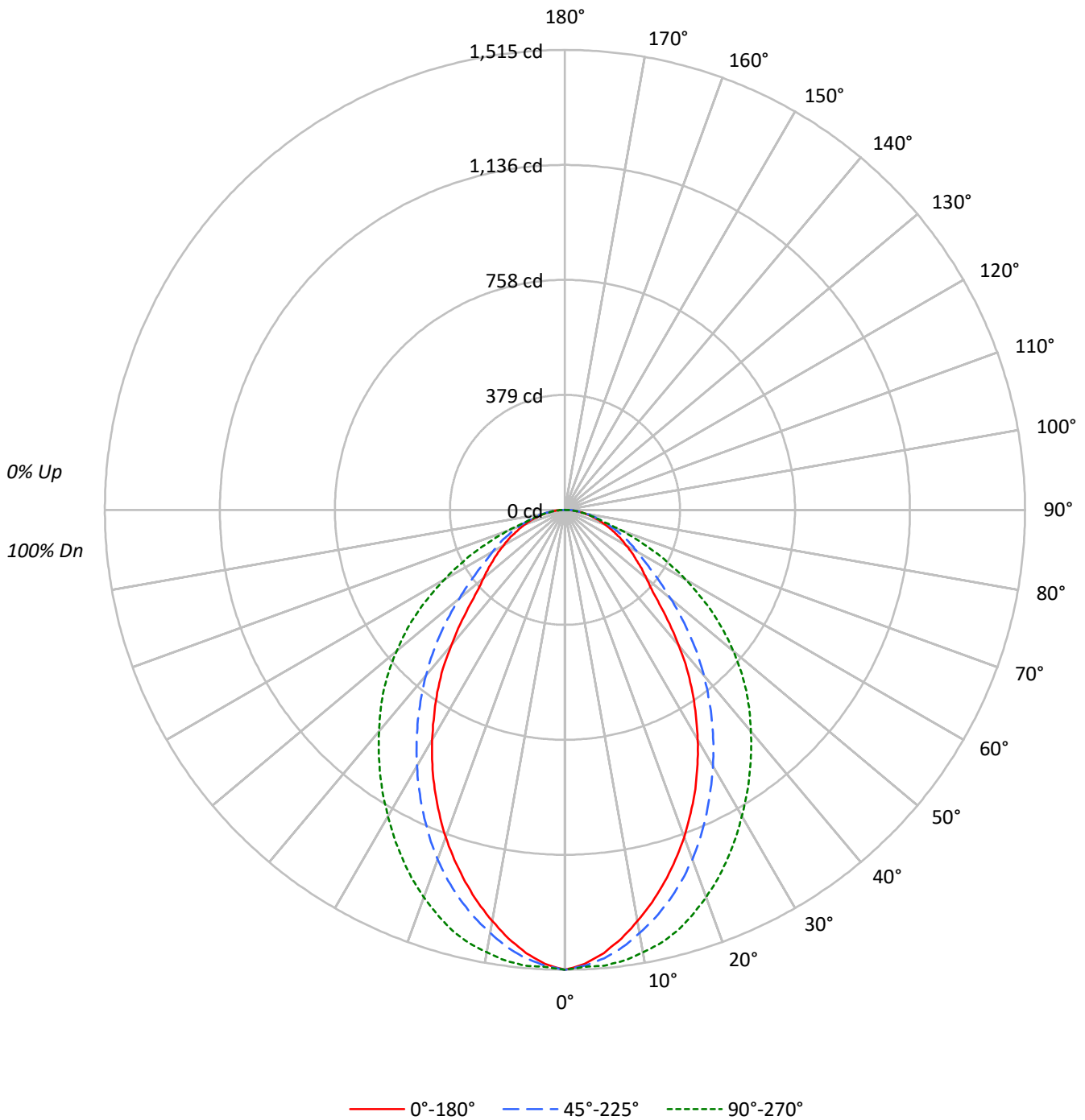
Lumens per Lamp: N/A
Luminaire Lumens: 2780.1 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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					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°	13047	13047	13047
5°	12668	12818	13027
10°	12028	12380	12943
15°	11308	11857	12789
20°	10517	11230	12446
25°	9644	10484	12038
30°	8692	9692	11585
35°	7696	8865	11148
40°	6541	8002	10700
45°	5356	7071	10287
50°	4687	6071	9682
55°	4307	5234	8957
60°	3996	4710	7896
65°	3743	4426	6612
70°	3510	4051	4962
75°	3300	3703	3613
80°	3060	3392	3060
85°	2786	3310	2648

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10287 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.0	5.0
10°-20°	376.7	13.6
20°-30°	515.0	18.5
30°-40°	541.2	19.5
40°-50°	469.6	16.9
50°-60°	354.3	12.7
60°-70°	229.7	8.3
70°-80°	117.9	4.2
80°-90°	35.7	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°	1031.7	37.1
0°-40°	1572.9	56.6
0°-60°	2396.8	86.2
0°-90°	2780.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2780.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1515	1515	1515	1515	1515	
5°	1466	1486	1483	1495	1507	137
15°	1268	1299	1330	1390	1435	356
25°	1015	1051	1103	1188	1267	465
35°	732	772	843	956	1060	455
45°	440	481	581	725	845	346
55°	287	295	349	495	597	258
65°	184	188	217	263	324	183
75°	99	111	111	113	109	105
85°	28	35	34	32	27	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1515.1	1515.1	1515.1	1515.1	1515.1
2.5°	1497.6	1516.4	1503.0	1505.7	1507.0
5°	1465.5	1485.6	1482.9	1495.0	1507.0
7.5°	1423.9	1448.0	1453.4	1477.5	1497.6
10°	1375.6	1402.4	1415.8	1454.7	1480.2
12.5°	1324.7	1351.5	1375.6	1425.2	1461.4
15°	1268.4	1299.2	1330.0	1390.4	1434.6
17.5°	1209.4	1241.5	1280.4	1346.1	1398.4
20°	1147.7	1179.9	1225.5	1296.5	1358.2
22.5°	1082.0	1118.2	1166.5	1242.9	1315.3
25°	1015.0	1051.2	1103.4	1187.9	1267.0
27.5°	945.2	982.8	1039.1	1132.9	1217.4
30°	874.2	914.4	974.7	1074.0	1165.1
32.5°	801.8	844.7	909.0	1015.0	1114.2
35°	732.1	772.3	843.3	956.0	1060.5
37.5°	659.7	699.9	776.3	898.3	1006.9
40°	581.9	626.1	711.9	838.0	951.9
42.5°	509.5	553.7	646.2	780.3	899.7
45°	439.8	481.3	580.6	725.4	844.7
47.5°	386.1	415.6	514.9	671.7	785.7
50°	349.9	363.3	453.2	612.7	722.7
52.5°	317.8	328.5	396.9	553.7	661.0
55°	286.9	295.0	348.6	494.7	596.6
57.5°	260.1	264.1	305.7	435.7	526.9
60°	232.0	237.3	273.5	375.4	458.5
62.5°	209.2	211.8	245.4	317.8	390.2
65°	183.7	187.7	217.2	262.8	324.5
67.5°	160.9	167.6	187.7	214.5	256.1
70°	139.4	148.8	160.9	174.3	197.1
72.5°	119.3	130.1	136.8	142.1	138.1
75°	99.2	111.3	111.3	112.6	108.6
77.5°	80.4	91.2	89.8	88.5	83.1
80°	61.7	71.1	68.4	67.0	61.7
82.5°	45.6	52.3	49.6	48.3	41.6
85°	28.2	34.9	33.5	32.2	26.8
87.5°	13.4	20.1	18.8	17.4	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)