

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: P1060290

Luminaire Tested: S124RDR-S1020D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060290
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-S1020D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

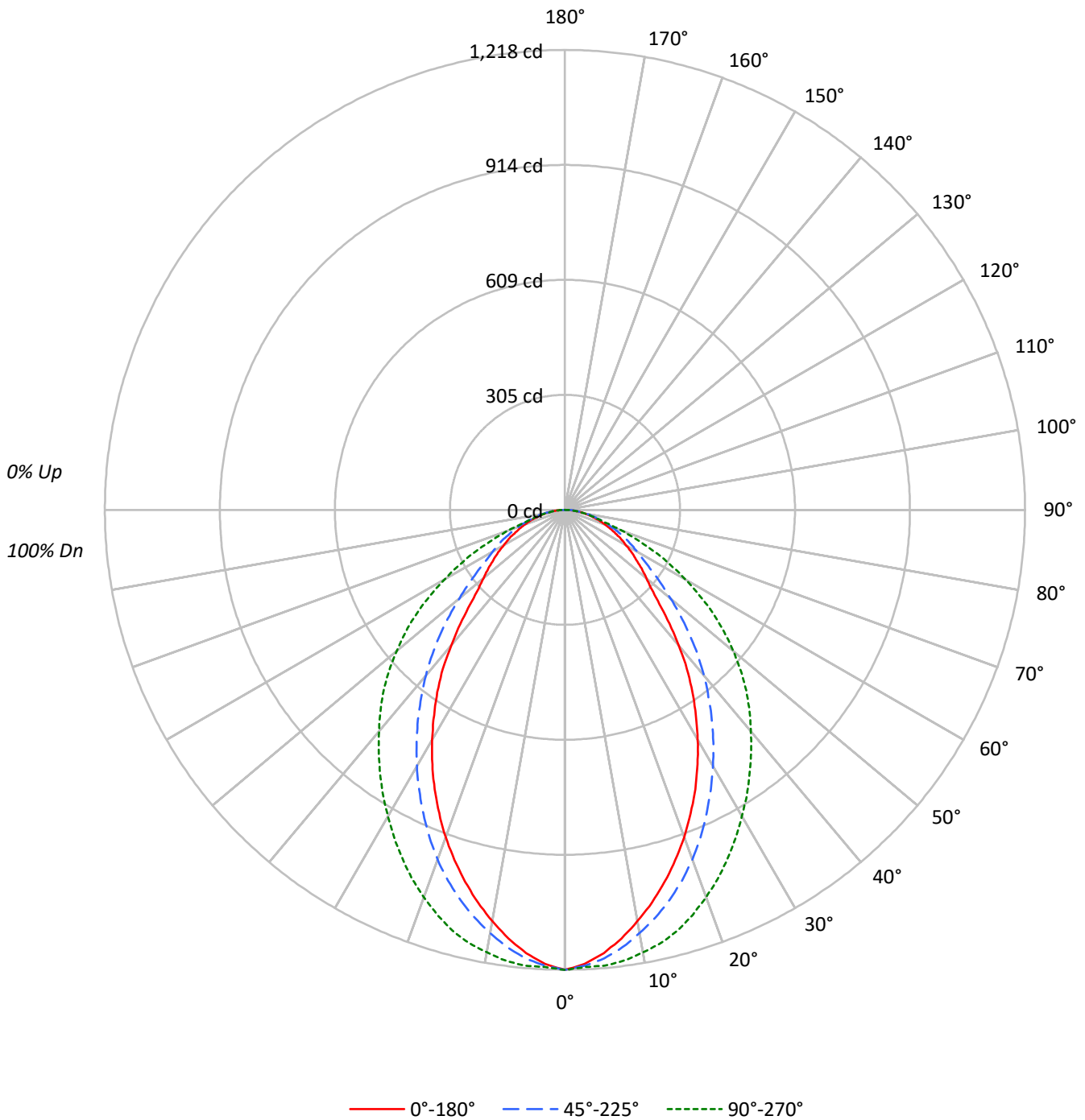
Lumens per Lamp: N/A
Luminaire Lumens: 2235.4 lumens
Efficiency: N/A
Efficacy: 63.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	10490	10490	10490
5°	10185	10306	10474
10°	9672	9954	10407
15°	9091	9534	10283
20°	8456	9030	10008
25°	7754	8430	9680
30°	6989	7794	9315
35°	6188	7128	8964
40°	5260	6435	8604
45°	4306	5685	8271
50°	3770	4882	7785
55°	3464	4208	7202
60°	3212	3787	6350
65°	3009	3558	5316
70°	2822	3258	3991
75°	2655	2978	2905
80°	2460	2727	2460
85°	2233	2668	2134

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8271 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.6	5.0
10°-20°	302.9	13.6
20°-30°	414.1	18.5
30°-40°	435.2	19.5
40°-50°	377.6	16.9
50°-60°	284.9	12.7
60°-70°	184.6	8.3
70°-80°	94.8	4.2
80°-90°	28.7	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°	829.6	37.1
0°-40°	1264.7	56.6
0°-60°	1927.2	86.2
0°-90°	2235.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2235.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1178	1194	1192	1202	1212	110
15°	1020	1045	1069	1118	1154	286
25°	816	845	887	955	1019	374
35°	589	621	678	769	853	366
45°	354	387	467	583	679	278
55°	231	237	280	398	480	208
65°	148	151	175	211	261	147
75°	80	90	90	91	87	85
85°	23	28	27	26	22	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1218.2	1218.2	1218.2	1218.2	1218.2
2.5°	1204.2	1219.3	1208.5	1210.7	1211.7
5°	1178.3	1194.5	1192.3	1202.0	1211.7
7.5°	1144.9	1164.3	1168.6	1188.0	1204.2
10°	1106.1	1127.7	1138.4	1169.7	1190.2
12.5°	1065.1	1086.7	1106.1	1146.0	1175.1
15°	1019.8	1044.6	1069.4	1118.0	1153.5
17.5°	972.4	998.3	1029.6	1082.4	1124.4
20°	922.8	948.7	985.4	1042.5	1092.1
22.5°	870.0	899.1	937.9	999.4	1057.6
25°	816.1	845.2	887.2	955.2	1018.8
27.5°	760.0	790.2	835.5	911.0	978.9
30°	702.9	735.2	783.8	863.5	936.8
32.5°	644.7	679.2	730.9	816.1	895.9
35°	588.6	621.0	678.1	768.7	852.7
37.5°	530.4	562.7	624.2	722.3	809.6
40°	467.9	503.5	572.5	673.8	765.4
42.5°	409.7	445.2	519.6	627.4	723.4
45°	353.6	387.0	466.8	583.2	679.2
47.5°	310.5	334.2	414.0	540.1	631.7
50°	281.4	292.2	364.4	492.7	581.1
52.5°	255.5	264.1	319.1	445.2	531.5
55°	230.7	237.2	280.3	397.8	479.7
57.5°	209.1	212.4	245.8	350.4	423.7
60°	186.5	190.8	219.9	301.9	368.7
62.5°	168.2	170.3	197.3	255.5	313.7
65°	147.7	150.9	174.6	211.3	260.9
67.5°	129.4	134.8	150.9	172.5	205.9
70°	112.1	119.7	129.4	140.1	158.5
72.5°	95.9	104.6	110.0	114.3	111.0
75°	79.8	89.5	89.5	90.6	87.3
77.5°	64.7	73.3	72.2	71.2	66.8
80°	49.6	57.1	55.0	53.9	49.6
82.5°	36.7	42.0	39.9	38.8	33.4
85°	22.6	28.0	27.0	25.9	21.6
87.5°	10.8	16.2	15.1	14.0	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)