

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: P1060236

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060236
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-S1020D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

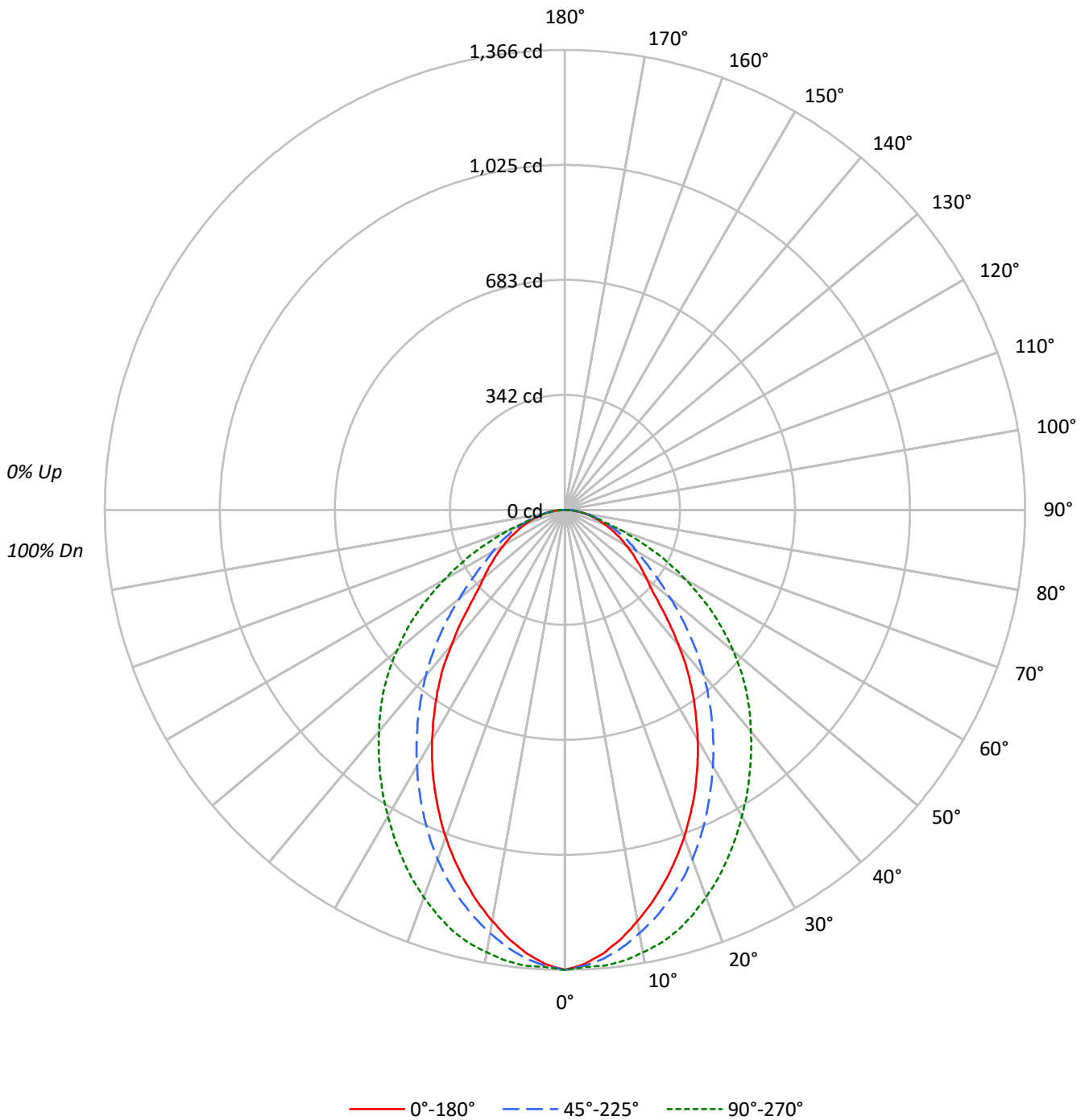
Lumens per Lamp: N/A
Luminaire Lumens: 2506.8 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				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°	11765	11765	11765
5°	11422	11558	11746
10°	10846	11163	11671
15°	10196	10692	11532
20°	9484	10126	11223
25°	8696	9454	10855
30°	7838	8739	10446
35°	6939	7995	10053
40°	5898	7217	9649
45°	4829	6375	9276
50°	4227	5474	8729
55°	3884	4719	8077
60°	3603	4247	7121
65°	3374	3992	5962
70°	3165	3653	4474
75°	2978	3337	3257
80°	2757	3060	2757
85°	2510	2984	2391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9276 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	5.0
10°-20°	339.7	13.6
20°-30°	464.3	18.5
30°-40°	488.0	19.5
40°-50°	423.5	16.9
50°-60°	319.4	12.7
60°-70°	207.1	8.3
70°-80°	106.3	4.2
80°-90°	32.2	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°	930.3	37.1
0°-40°	1418.3	56.6
0°-60°	2161.2	86.2
0°-90°	2506.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2506.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1321	1340	1337	1348	1359	124
15°	1144	1172	1199	1254	1294	321
25°	915	948	995	1071	1142	420
35°	660	696	760	862	956	411
45°	396	434	524	654	762	312
55°	259	266	314	446	538	233
65°	166	169	196	237	293	165
75°	90	100	100	102	98	95
85°	25	31	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°	1366.2	1366.2	1366.2	1366.2	1366.2
2.5°	1350.4	1367.4	1355.3	1357.7	1358.9
5°	1321.4	1339.6	1337.1	1348.0	1358.9
7.5°	1283.9	1305.7	1310.5	1332.3	1350.4
10°	1240.4	1264.6	1276.7	1311.7	1334.7
12.5°	1194.5	1218.7	1240.4	1285.2	1317.8
15°	1143.7	1171.5	1199.3	1253.7	1293.6
17.5°	1090.5	1119.5	1154.6	1213.8	1261.0
20°	1034.9	1063.9	1105.0	1169.1	1224.7
22.5°	975.7	1008.3	1051.8	1120.7	1186.0
25°	915.2	947.8	995.0	1071.2	1142.5
27.5°	852.3	886.2	937.0	1021.6	1097.8
30°	788.3	824.5	878.9	968.4	1050.6
32.5°	723.0	761.7	819.7	915.2	1004.7
35°	660.1	696.4	760.5	862.0	956.3
37.5°	594.8	631.1	700.0	810.0	907.9
40°	524.7	564.6	642.0	755.6	858.4
42.5°	459.4	499.3	582.7	703.6	811.2
45°	396.5	434.0	523.5	654.1	761.7
47.5°	348.2	374.8	464.3	605.7	708.5
50°	315.5	327.6	408.6	552.5	651.6
52.5°	286.5	296.2	357.9	499.3	596.0
55°	258.7	266.0	314.3	446.1	538.0
57.5°	234.5	238.2	275.6	392.9	475.1
60°	209.2	214.0	246.6	338.5	413.5
62.5°	188.6	191.0	221.2	286.5	351.8
65°	165.6	169.3	195.9	237.0	292.6
67.5°	145.1	151.1	169.3	193.4	230.9
70°	125.7	134.2	145.1	157.2	177.7
72.5°	107.6	117.3	123.3	128.2	124.5
75°	89.5	100.3	100.3	101.6	97.9
77.5°	72.5	82.2	81.0	79.8	75.0
80°	55.6	64.1	61.7	60.4	55.6
82.5°	41.1	47.2	44.7	43.5	37.5
85°	25.4	31.4	30.2	29.0	24.2
87.5°	12.1	18.1	16.9	15.7	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)