

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: P1059100

Luminaire Tested: S123RDR-S1165D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059100
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D835-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

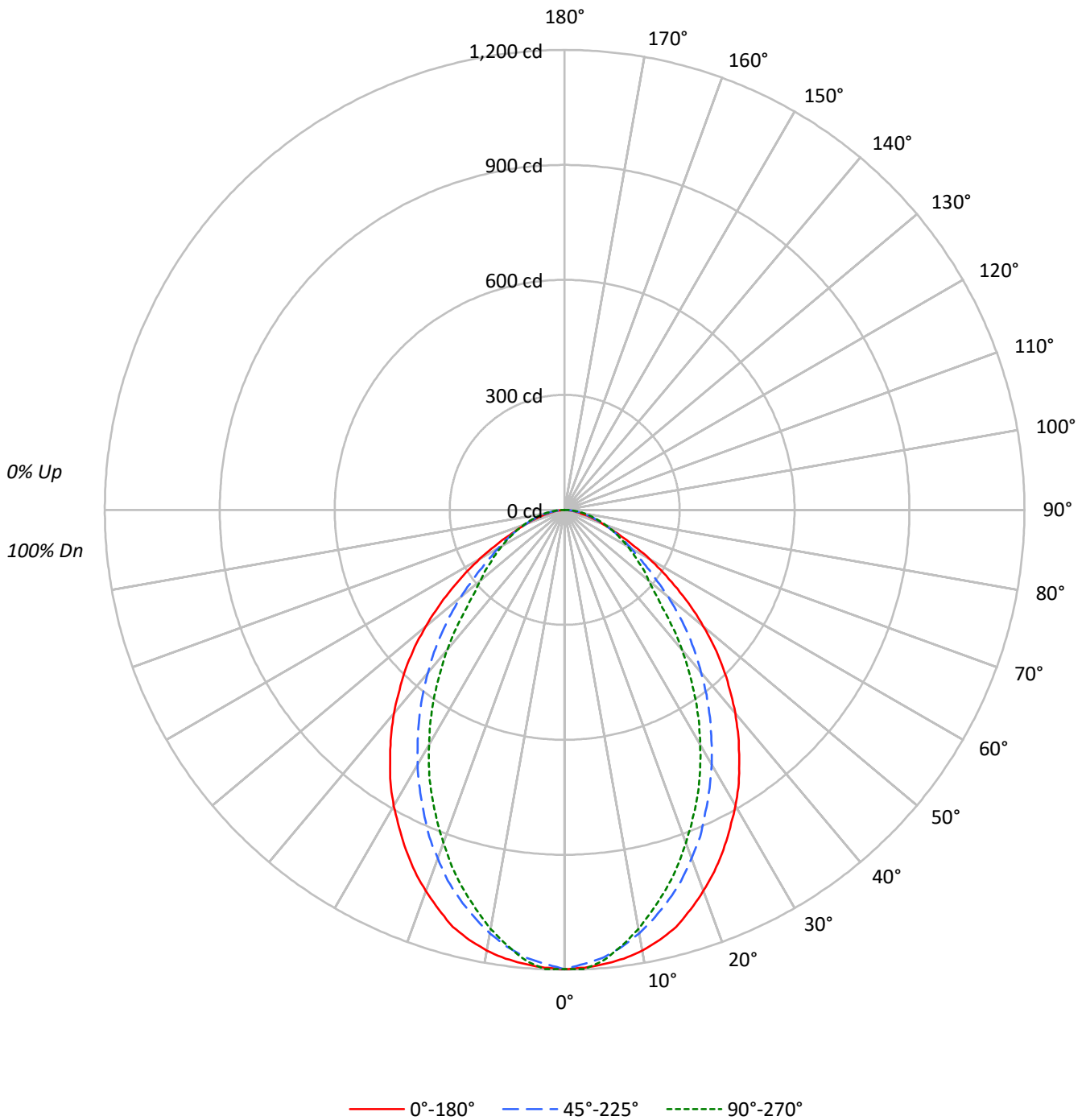
Lumens per Lamp: N/A
Luminaire Lumens: 2096.0 lumens
Efficiency: N/A
Efficacy: 50.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14072	14072	14072
5°	14025	13821	13905
10°	13928	13379	13241
15°	13693	12800	12450
20°	13230	12095	11555
25°	12691	11272	10637
30°	12089	10409	9589
35°	11376	9477	8486
40°	10620	8500	7309
45°	9735	7511	6003
50°	8630	6447	5210
55°	7343	5397	4776
60°	5986	4702	4432
65°	4562	4162	4123
70°	3560	3708	3856
75°	2876	3335	3593
80°	2144	2725	3313
85°	1159	1751	2910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9735 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.2	5.3
10°-20°	299.3	14.3
20°-30°	406.9	19.4
30°-40°	421.8	20.1
40°-50°	355.7	17.0
50°-60°	252.5	12.0
60°-70°	154.3	7.4
70°-80°	76.8	3.7
80°-90°	17.4	0.8
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°	817.4	39.0
0°-40°	1239.2	59.1
0°-60°	1847.4	88.1
0°-90°	2096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2096.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1190	1190	1172	1180	1180	113
15°	1126	1105	1053	1034	1024	316
25°	980	936	870	838	821	450
35°	794	733	661	615	592	496
45°	586	524	452	390	362	450
55°	359	321	264	240	233	322
65°	164	158	150	150	148	168
75°	63	68	74	76	79	68
85°	9	10	13	19	22	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.4	1198.4	1198.4	1198.4	1198.4
2.5°	1195.5	1197.0	1185.4	1198.4	1199.8
5°	1189.8	1189.8	1172.5	1179.7	1179.7
7.5°	1181.1	1178.2	1149.4	1149.4	1146.5
10°	1168.1	1159.5	1122.1	1114.9	1110.5
12.5°	1149.4	1135.0	1088.9	1076.0	1067.3
15°	1126.4	1104.8	1052.9	1034.2	1024.1
17.5°	1093.2	1071.6	1014.0	988.1	976.6
20°	1058.7	1027.0	967.9	942.0	924.7
22.5°	1021.2	980.9	923.3	891.6	872.9
25°	979.5	936.2	870.0	838.3	821.0
27.5°	934.8	887.3	819.6	783.6	766.3
30°	891.6	836.9	767.7	727.4	707.2
32.5°	845.5	783.6	713.0	671.2	651.1
35°	793.6	733.2	661.1	615.0	592.0
37.5°	744.7	682.7	607.8	558.9	532.9
40°	692.8	630.9	554.5	504.1	476.8
42.5°	638.1	579.0	504.1	445.1	419.2
45°	586.2	524.3	452.3	390.3	361.5
47.5°	530.1	472.4	401.9	338.5	318.3
50°	472.4	419.2	352.9	295.3	285.2
52.5°	416.3	371.6	303.9	266.5	262.1
55°	358.7	321.2	263.6	240.5	233.3
57.5°	305.4	278.0	226.1	214.6	211.7
60°	254.9	231.9	200.2	193.0	188.7
62.5°	206.0	193.0	174.3	171.4	168.5
65°	164.2	158.4	149.8	149.8	148.4
67.5°	129.6	129.6	128.2	131.1	129.6
70°	103.7	105.1	108.0	110.9	112.3
72.5°	82.1	86.4	89.3	93.6	95.1
75°	63.4	67.7	73.5	76.3	79.2
77.5°	46.1	50.4	56.2	60.5	63.4
80°	31.7	34.6	40.3	46.1	49.0
82.5°	20.2	21.6	25.9	31.7	34.6
85°	8.6	10.1	13.0	18.7	21.6
87.5°	0.0	0.0	1.4	5.8	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)