

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P33912

Luminaire Tested: **S123DW-135-0048-1D-UDD-1-W**

Issue Date: 3/3/2020

**Test Information**

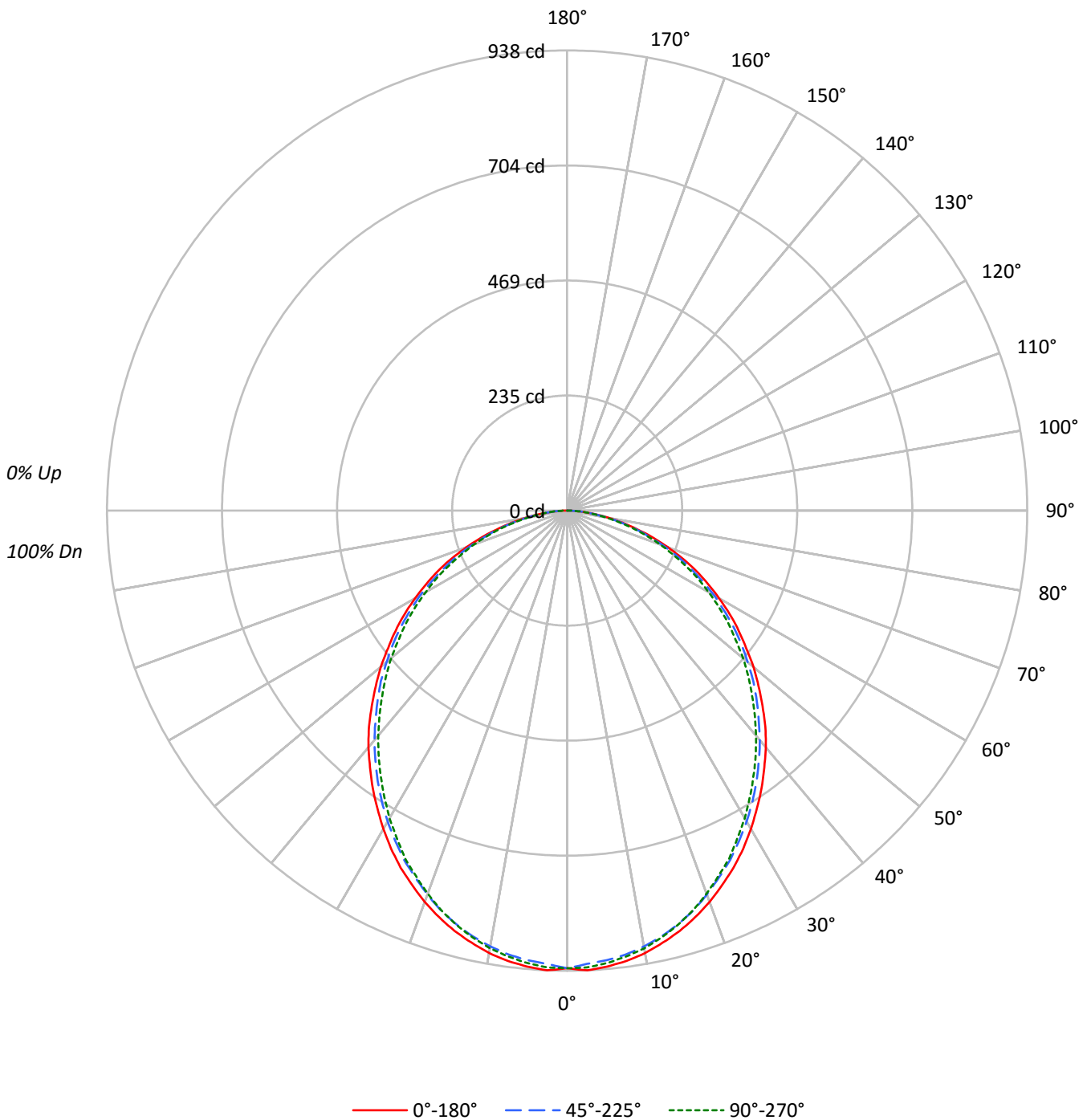
Test Method: LM-79-08  
Report Number: P33912  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DW-135-0048-1D-UDD-1-W  
Description: NEORAY DIRECT- INDIRECT 3" FIXTURE WITH A FLUSH DIFFUSE  
LENS.LL1  
Light Source: [117] NICHIA 3500K LED  
Nichia 757D  
Ballast/Driver: [1] OSRAM SYLVANIA ELECTRONIC DRIVER  
OT50WPRG1400C

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2380.4 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28  
Input Voltage (V): 120.01  
Input Current (Ain): 0.2348  
Voltage Rise (V): NR  
Power Factor: 0.9971  
Total Harmonic Distortion (THDi): 7.52  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: HR  
Ambient Temperature (°C): NR  
Test Distance: 25 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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10043	10043	10043
5°	10081	9941	10005
10°	10012	9859	9903
15°	9884	9728	9740
20°	9725	9542	9519
25°	9537	9335	9288
30°	9309	9098	8999
35°	9080	8843	8699
40°	8852	8585	8417
45°	8570	8311	8114
50°	8306	8038	7837
55°	8013	7769	7525
60°	7707	7449	7169
65°	7386	7030	6775
70°	6861	6546	6357
75°	6197	5989	5739
80°	5331	5083	4959
85°	4076	4076	4076



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.9	3.7
10°-20°	247.4	10.4
20°-30°	363.6	15.3
30°-40°	422.4	17.7
40°-50°	422.7	17.8
50°-60°	370.4	15.6
60°-70°	274.4	11.5
70°-80°	152.0	6.4
80°-90°	39.5	1.7
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°	698.9	29.4
0°-40°	1121.3	47.1
0°-60°	1914.4	80.4
0°-90°	2380.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2380.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	933	929	920	928	926	89
15°	887	883	873	877	874	250
25°	803	798	786	784	782	370
35°	691	686	673	666	662	432
45°	563	557	546	538	533	435
55°	427	425	414	405	401	382
65°	290	286	276	270	266	286
75°	149	147	144	139	138	159
85°	33	34	33	33	33	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	933	933	933	933	933
2.5°	938	933	925	933	932
5°	933	929	920	928	926
7.5°	926	922	913	920	917
10°	916	911	902	909	906
12.5°	902	898	889	894	891
15°	887	883	873	877	874
17.5°	869	865	855	857	854
20°	849	844	833	835	831
22.5°	826	822	809	811	806
25°	803	798	786	784	782
27.5°	777	772	759	757	752
30°	749	744	732	728	724
32.5°	720	715	703	698	693
35°	691	686	673	666	662
37.5°	660	654	642	636	631
40°	630	623	611	603	599
42.5°	598	591	578	570	566
45°	563	557	546	538	533
47.5°	529	526	515	506	501
50°	496	494	480	472	468
52.5°	460	459	448	439	433
55°	427	425	414	405	401
57.5°	393	389	379	372	367
60°	358	354	346	338	333
62.5°	323	321	310	303	301
65°	290	286	276	270	266
67.5°	254	250	243	236	232
70°	218	215	208	203	202
72.5°	184	180	174	171	169
75°	149	147	144	139	138
77.5°	117	115	112	109	107
80°	86	84	82	81	80
82.5°	58	57	56	56	55
85°	33	34	33	33	33
87.5°	15	15	14	14	15
90°	0	0	0	0	0

(END OF REPORT)