

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: P33917

Luminaire Tested: **S124RDW-135-0048-1D-UDD-1-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P33917  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDW-135-0048-1D-UDD-1-W  
Description: NEORAY DIRECT- INDIRECT 4" FIXTURE WITH REGRESSED DIFFUSE  
LENS.LL1  
Light Source: [117] NICHIA 3500K LED  
Nichia 757D  
Ballast/Driver: [1] OSRAM SYLVANIA ELECTRONIC DRIVER  
OT50WPRG1400C

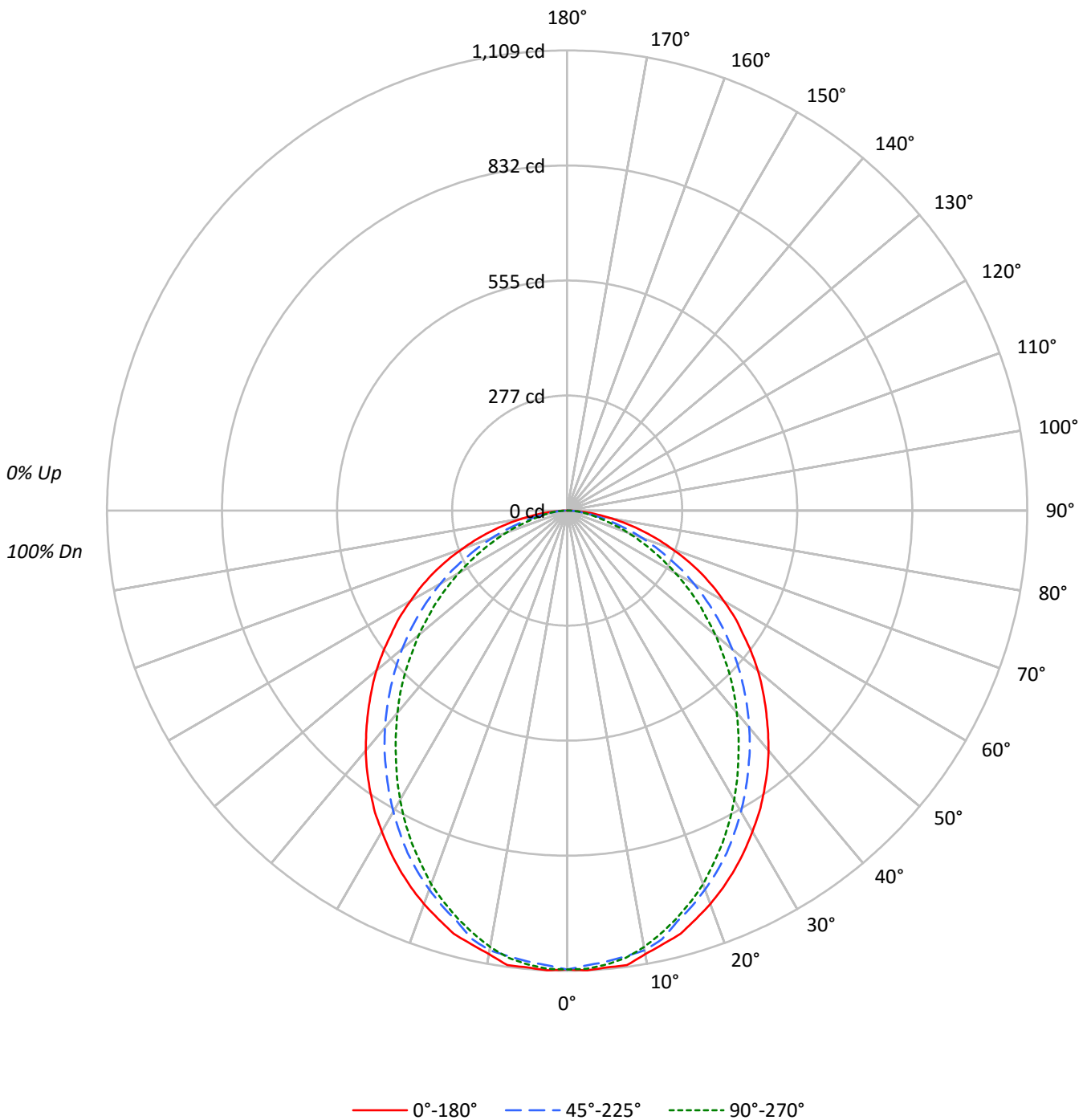
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2612.6 lumens  
Efficiency: N/A  
Efficacy: 93.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.1 / 1.25  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28  
Input Voltage (V): 120.02  
Input Current (A<sub>in</sub>): 0.2343  
Voltage Rise (V): NR  
Power Factor: 0.9977  
Total Harmonic Distortion (THDi): 7.21  
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	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	85	79	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

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

	0°	45°	90°
0°	8929	8929	8929
5°	8955	8841	8898
10°	8894	8820	8755
15°	8826	8567	8508
20°	8668	8350	8230
25°	8507	8106	7883
30°	8324	7812	7504
35°	8150	7500	7096
40°	7957	7198	6702
45°	7729	6862	6302
50°	7536	6518	5865
55°	7277	6137	5405
60°	7040	5699	4860
65°	6781	5138	4298
70°	6326	4532	3682
75°	5802	3743	2932
80°	5021	2882	2603
85°	4076	2501	2316



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.3	4.0
10°-20°	291.3	11.1
20°-30°	421.8	16.1
30°-40°	480.3	18.4
40°-50°	468.7	17.9
50°-60°	395.8	15.1
60°-70°	276.7	10.6
70°-80°	139.2	5.3
80°-90°	34.4	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°	817.4	31.3
0°-40°	1297.7	49.7
0°-60°	2162.3	82.8
0°-90°	2612.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2612.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1106	1106	1106	1106	1106	
5°	1105	1101	1091	1100	1098	105
15°	1056	1048	1025	1025	1018	297
25°	955	941	910	895	885	440
35°	827	803	761	733	720	517
45°	677	651	601	565	552	523
55°	517	487	436	397	384	464
65°	355	320	269	237	225	350
75°	186	157	120	100	94	197
85°	44	29	27	26	25	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1106	1106	1106	1106	1106
2.5°	1109	1107	1097	1107	1105
5°	1105	1101	1091	1100	1098
7.5°	1105	1100	1083	1089	1087
10°	1085	1088	1076	1070	1068
12.5°	1070	1065	1058	1049	1044
15°	1056	1048	1025	1025	1018
17.5°	1032	1026	1000	1000	989
20°	1009	1000	972	972	958
22.5°	983	973	942	939	921
25°	955	941	910	895	885
27.5°	925	908	874	855	846
30°	893	875	838	815	805
32.5°	862	841	800	775	763
35°	827	803	761	733	720
37.5°	792	768	723	691	678
40°	755	728	683	650	636
42.5°	716	689	642	607	595
45°	677	651	601	565	552
47.5°	639	610	560	522	507
50°	600	570	519	481	467
52.5°	559	529	478	439	423
55°	517	487	436	397	384
57.5°	479	445	394	356	342
60°	436	402	353	315	301
62.5°	396	361	313	276	262
65°	355	320	269	237	225
67.5°	312	279	230	200	189
70°	268	236	192	165	156
72.5°	227	196	155	131	125
75°	186	157	120	100	94
77.5°	146	120	89	74	72
80°	108	86	62	56	56
82.5°	74	54	43	41	41
85°	44	29	27	26	25
87.5°	19	13	12	11	11
90°	0	0	0	0	0

(END OF REPORT)