

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: P243478

Luminaire Tested: **S124DR-H350D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243478  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-H350D935-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1221.4 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

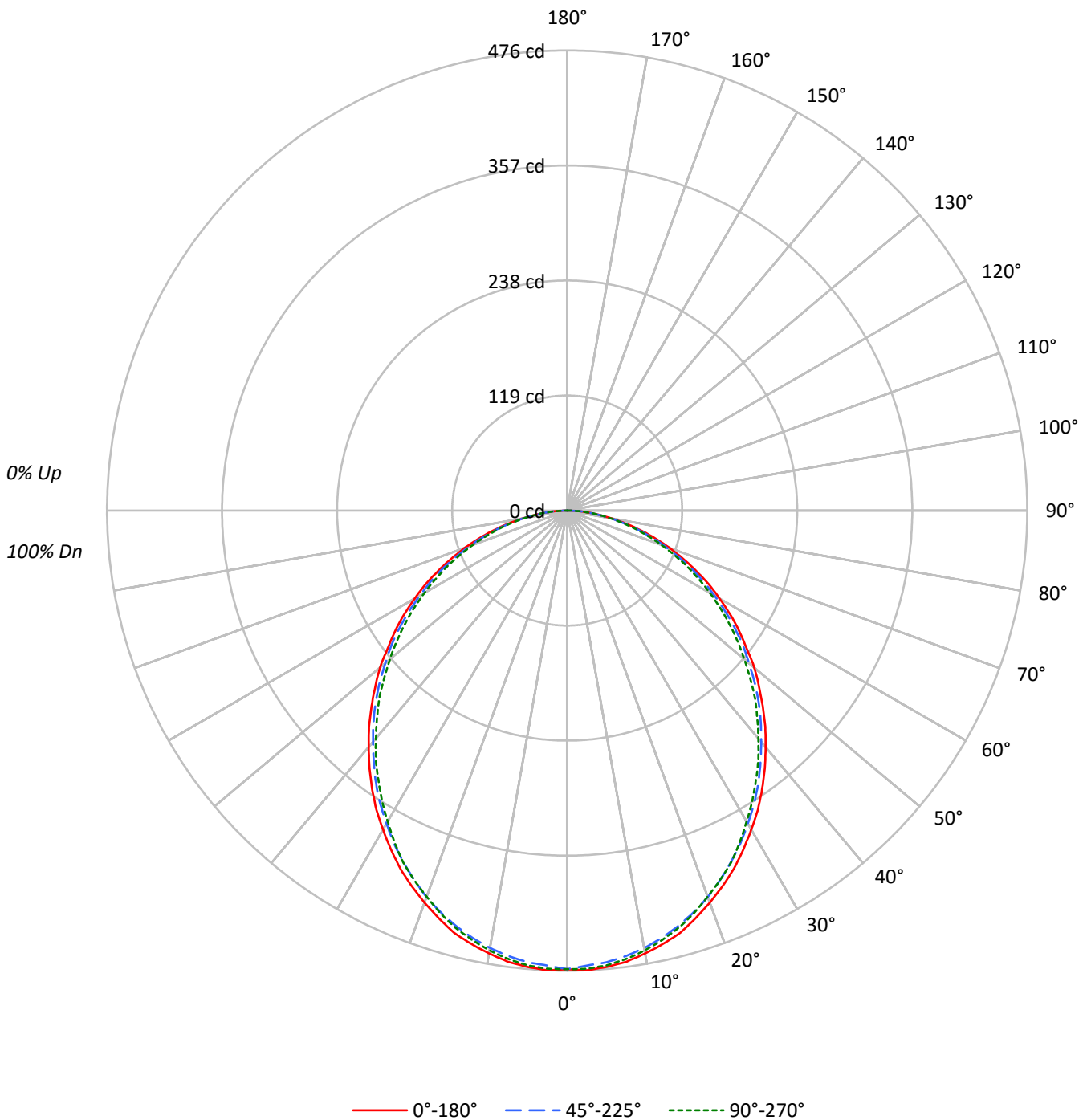
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	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	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	4217	4217	4217
5°	4227	4185	4212
10°	4199	4147	4171
15°	4160	4092	4111
20°	4083	4024	4020
25°	4006	3934	3938
30°	3911	3836	3812
35°	3816	3740	3695
40°	3705	3624	3570
45°	3597	3524	3456
50°	3497	3395	3309
55°	3368	3279	3177
60°	3239	3129	3033
65°	3086	2980	2882
70°	2919	2789	2698
75°	2693	2586	2507
80°	2370	2334	2273
85°	2091	2091	2050



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.7	3.7
10°-20°	126.1	10.3
20°-30°	185.7	15.2
30°-40°	216.1	17.7
40°-50°	216.2	17.7
50°-60°	189.1	15.5
60°-70°	140.4	11.5
70°-80°	80.0	6.6
80°-90°	23.1	1.9
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°	356.6	29.2
0°-40°	572.7	46.9
0°-60°	977.9	80.1
0°-90°	1221.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1221.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	474	474	474	474	474	
5°	474	473	469	472	472	45
15°	452	450	445	447	447	127
25°	408	406	401	402	402	188
35°	352	349	345	342	340	220
45°	286	285	280	276	275	221
55°	217	216	212	207	205	194
65°	147	146	142	139	137	146
75°	78	77	75	74	73	83
85°	20	20	20	20	20	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	474.4	474.4	474.4	474.4	474.4
2.5°	476.0	474.8	471.0	474.8	474.4
5°	473.7	472.9	469.0	472.5	472.1
7.5°	470.6	469.0	464.8	468.3	467.9
10°	465.2	464.0	459.4	462.9	462.1
12.5°	459.0	457.8	452.8	455.5	454.8
15°	452.1	449.7	444.7	447.4	446.7
17.5°	442.0	440.5	435.5	437.8	436.6
20°	431.6	429.7	425.4	425.8	425.0
22.5°	420.4	418.5	413.5	415.0	413.5
25°	408.4	406.5	401.1	402.3	401.5
27.5°	394.9	393.0	388.0	388.4	386.8
30°	381.0	378.7	373.7	373.3	371.4
32.5°	367.1	364.8	359.8	358.2	356.3
35°	351.7	348.6	344.7	341.6	340.5
37.5°	335.9	334.3	328.5	326.6	325.0
40°	319.3	317.7	312.3	309.6	307.7
42.5°	303.4	301.5	296.5	292.6	291.1
45°	286.1	284.9	280.3	276.0	274.9
47.5°	269.1	268.7	262.9	258.6	256.7
50°	252.9	250.5	245.5	241.7	239.3
52.5°	233.9	233.6	229.3	224.3	222.4
55°	217.3	215.8	211.6	206.9	205.0
57.5°	200.0	199.2	193.8	189.9	188.0
60°	182.2	180.7	176.0	172.6	170.6
62.5°	165.2	163.3	159.1	155.6	153.6
65°	146.7	145.5	141.7	138.6	137.0
67.5°	129.3	127.8	123.9	121.2	119.7
70°	112.3	110.0	107.3	105.0	103.8
72.5°	95.4	93.4	91.1	89.6	88.0
75°	78.4	76.8	75.3	73.7	73.0
77.5°	62.2	60.6	59.8	59.5	58.7
80°	46.3	45.6	45.6	45.2	44.4
82.5°	32.8	32.0	32.0	32.0	31.7
85°	20.5	20.1	20.5	19.7	20.1
87.5°	9.7	9.7	10.0	9.7	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)