

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: P231641

Luminaire Tested: **S125-DR-LO-35-X-0048-1-U-DD-4-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231641  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33919)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125-DR-LO-35-X-0048-1-U-DD-4-W  
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH DROP LENS.  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1377.7 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.92' x H: 0.08')  
CIE Type: Direct

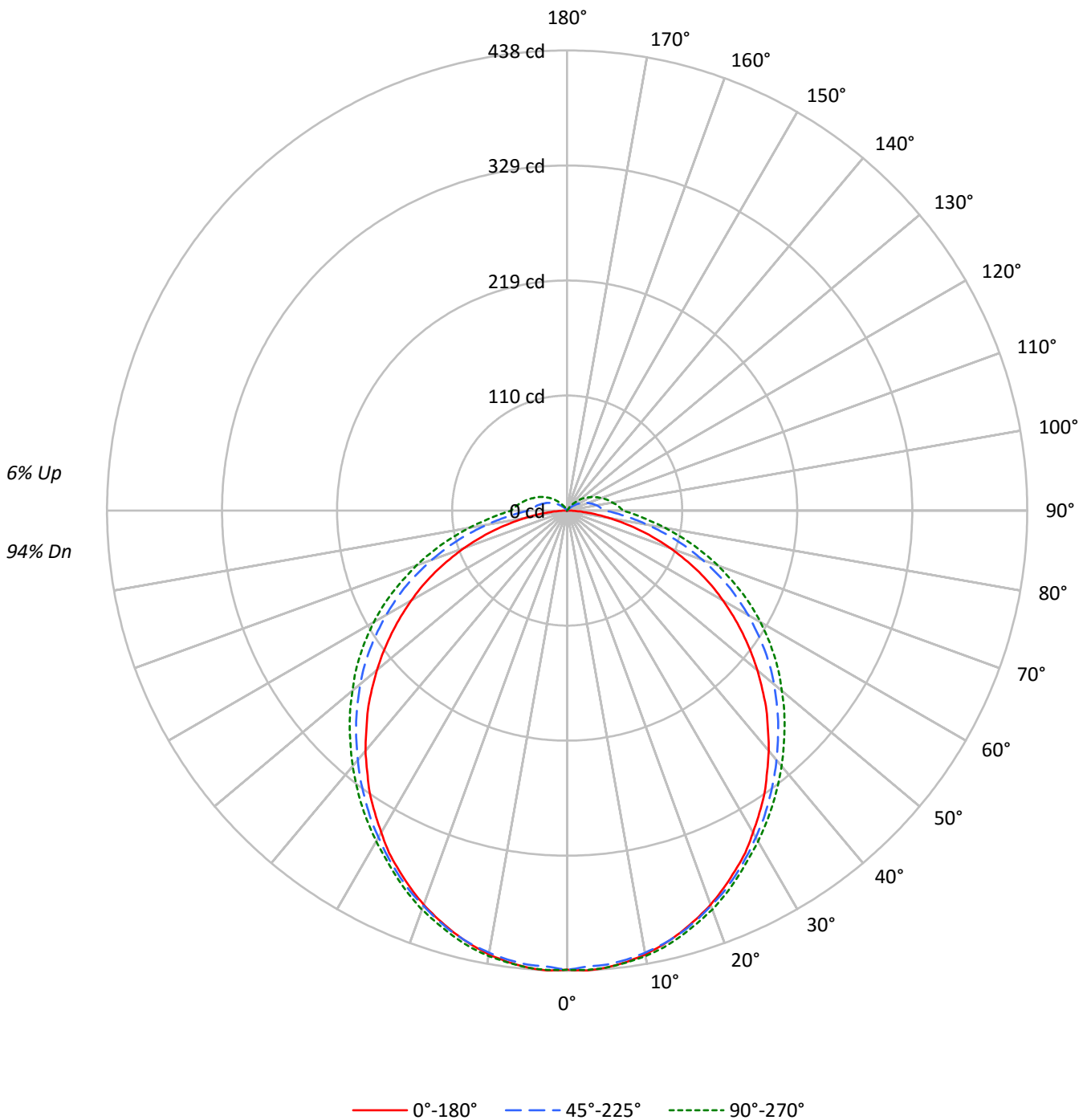
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	87	80	74	93	85	78	73	80	75	70	76	72	68	72	69	65	63
3	87	77	68	61	84	74	67	60	71	64	58	67	61	57	64	59	55	52
4	80	68	59	52	77	66	57	51	63	55	50	59	53	48	57	51	47	45
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	51	45	41	38
6	68	54	45	39	65	53	44	38	51	43	37	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	30
8	58	45	36	30	57	44	36	30	42	35	29	40	34	29	39	33	28	26
9	55	41	33	27	53	40	32	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	24	36	29	24	34	28	24	33	27	23	21

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

	0°	45°	90°
0°	3080	3080	3080
5°	3083	3025	3032
10°	3058	2971	2969
15°	3018	2910	2893
20°	2971	2831	2812
25°	2912	2752	2719
30°	2844	2667	2633
35°	2778	2585	2555
40°	2699	2503	2478
45°	2618	2427	2404
50°	2528	2352	2331
55°	2432	2272	2266
60°	2331	2179	2187
65°	2209	2075	2092
70°	2032	1937	1981
75°	1801	1792	1860
80°	1448	1618	1738
85°	1021	1495	1666



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.4	3.0
10°-20°	117.8	8.6
20°-30°	176.2	12.8
30°-40°	210.1	15.2
40°-50°	218.4	15.9
50°-60°	202.2	14.7
60°-70°	163.4	11.9
70°-80°	108.6	7.9
80°-90°	55.3	4.0
90°-100°	31.4	2.3
100°-110°	23.6	1.7
110°-120°	15.7	1.1
120°-130°	8.9	0.6
130°-140°	3.9	0.3
140°-150°	0.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	335.3	24.3
0°-40°	545.4	39.6
0°-60°	966.1	70.1
0°-90°	1293.4	93.9
90°-120°	70.8	5.1
90°-150°	84.3	6.1
90°-180°	84.0	6.1
0°-180°	1377.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	437	437	437	437	437	
5°	437	436	434	437	437	41
15°	416	417	417	420	419	117
25°	378	381	381	385	385	174
35°	328	332	335	340	341	205
45°	268	276	284	291	293	207
55°	204	216	229	238	241	182
65°	138	153	169	180	183	137
75°	71	88	107	118	123	75
85°	16	34	54	66	71	18
90°	0	17	36	49	53	1
95°	0	14	32	44	49	0
105°	0	9	25	36	40	0
115°	0	4	17	27	30	0
125°	0	0	10	18	21	0
135°	0	0	3	10	12	0
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	437.1	437.1	437.1	437.1	437.1
2.5°	438.2	437.7	434.4	437.7	437.7
5°	436.6	436.0	433.9	436.6	436.6
7.5°	433.3	433.3	431.2	434.4	433.9
10°	429.0	429.5	427.4	430.6	430.6
12.5°	423.1	423.6	422.5	425.8	425.8
15°	416.0	417.1	416.6	419.8	419.3
17.5°	407.9	410.1	409.0	412.2	411.7
20°	399.3	401.4	400.3	404.1	404.1
22.5°	389.0	391.7	391.7	394.9	394.9
25°	378.2	381.4	381.4	385.2	384.6
27.5°	367.3	370.6	370.6	374.4	373.8
30°	353.8	358.1	359.2	363.5	363.5
32.5°	340.8	345.7	347.9	351.6	352.7
35°	327.8	332.2	335.4	340.3	341.4
37.5°	312.7	319.2	323.0	328.9	329.5
40°	298.6	305.1	310.0	316.5	317.6
42.5°	282.9	291.1	297.0	304.0	305.1
45°	268.3	276.4	284.0	291.1	292.7
47.5°	252.1	261.8	270.5	278.1	280.2
50°	236.4	246.7	257.0	265.1	266.7
52.5°	220.2	231.5	243.4	251.6	254.3
55°	204.0	215.9	228.8	237.5	240.7
57.5°	187.7	200.7	213.7	223.4	226.7
60°	171.5	184.5	199.1	208.8	212.6
62.5°	155.3	168.2	183.9	194.2	198.0
65°	138.5	152.6	168.8	179.6	182.9
67.5°	121.2	136.3	152.6	163.9	167.2
70°	104.4	120.1	136.9	148.8	152.6
72.5°	87.6	103.9	121.7	133.6	137.4
75°	71.4	88.2	106.6	118.5	122.8
77.5°	55.2	73.0	91.4	103.9	108.2
80°	40.0	58.4	77.4	89.8	94.7
82.5°	27.0	45.4	64.9	77.9	81.7
85°	15.7	34.1	53.6	66.5	70.9
87.5°	7.0	24.9	44.4	56.8	61.1
90°	0.0	17.3	36.2	49.2	53.0
92.5°	0.0	15.7	34.1	46.5	50.9
95°	0.0	14.1	31.9	44.4	48.7
97.5°	0.0	13.0	30.3	42.2	46.5
100°	0.0	11.4	28.7	40.0	43.8
102.5°	0.0	10.3	26.5	37.9	41.7
105°	0.0	8.7	24.9	35.7	39.5
107.5°	0.5	7.6	22.7	33.5	37.3
110°	0.5	6.5	21.1	31.4	34.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	4.9	18.9	29.2	32.5
115°	0.0	3.8	17.3	27.0	30.3
117.5°	0.0	2.7	15.1	24.9	28.1
120°	0.5	1.6	13.5	22.7	25.4
122.5°	0.5	0.5	11.9	20.0	23.3
125°	0.5	0.5	9.7	18.4	21.1
127.5°	0.0	0.5	8.1	16.2	18.9
130°	0.5	0.0	6.5	14.1	16.8
132.5°	0.5	0.5	4.9	11.9	14.6
135°	0.5	0.0	3.2	9.7	11.9
137.5°	0.5	0.0	2.2	7.6	9.7
140°	0.5	0.5	0.5	6.0	7.6
142.5°	0.5	0.5	0.0	3.8	5.4
145°	0.5	0.5	0.0	2.2	3.8
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)