

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: P231642

Luminaire Tested: **S125-DR-LO-40-X-0048-1-U-DD-4-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231642  
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-40-X-0048-1-U-DD-4-W  
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH DROP LENS.  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1404.2 lumens  
Efficiency: N/A  
Efficacy: 103.3 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

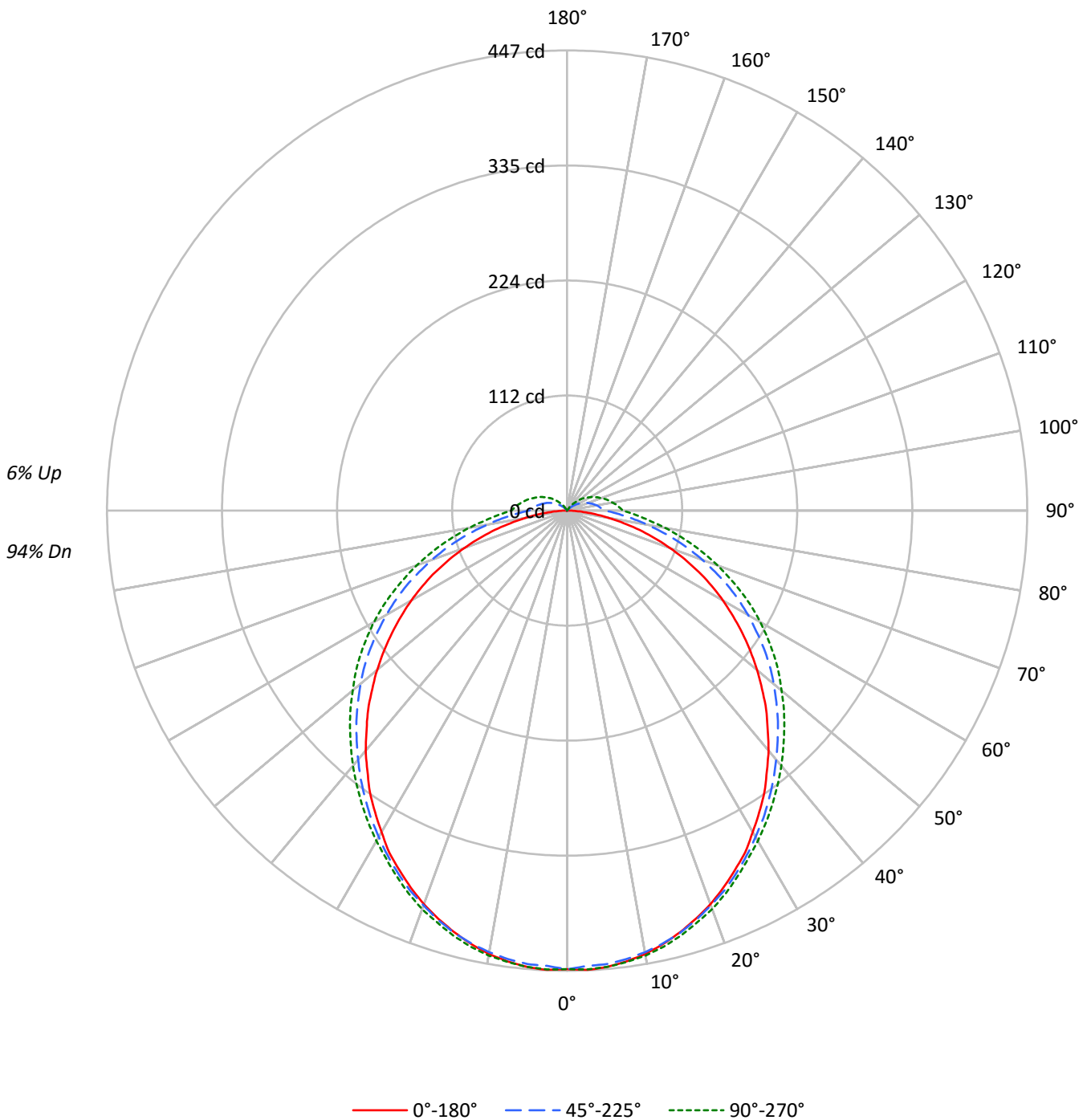
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3139	3139	3139
5°	3142	3083	3090
10°	3117	3028	3027
15°	3076	2966	2949
20°	3028	2885	2866
25°	2967	2805	2772
30°	2899	2718	2684
35°	2832	2635	2603
40°	2751	2550	2525
45°	2669	2474	2450
50°	2577	2397	2375
55°	2479	2316	2310
60°	2376	2221	2229
65°	2252	2115	2132
70°	2071	1974	2019
75°	1836	1825	1897
80°	1477	1647	1771
85°	1041	1523	1696



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.2	3.0
10°-20°	120.1	8.5
20°-30°	179.5	12.8
30°-40°	214.1	15.2
40°-50°	222.6	15.9
50°-60°	206.1	14.7
60°-70°	166.6	11.9
70°-80°	110.7	7.9
80°-90°	56.3	4.0
90°-100°	32.0	2.3
100°-110°	24.1	1.7
110°-120°	16.1	1.1
120°-130°	9.1	0.6
130°-140°	4.0	0.3
140°-150°	0.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	341.8	24.3
0°-40°	555.9	39.6
0°-60°	984.7	70.1
0°-90°	1318.3	93.9
90°-120°	72.1	5.1
90°-150°	85.9	6.1
90°-180°	86.0	6.1
0°-180°	1404.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	445	444	442	445	445	42
15°	424	425	425	428	427	120
25°	385	389	389	393	392	178
35°	334	339	342	347	348	209
45°	274	282	290	297	298	211
55°	208	220	233	242	245	186
65°	141	156	172	183	186	139
75°	73	90	109	121	125	77
85°	16	35	55	68	72	18
90°	0	18	37	50	54	1
95°	0	14	32	45	50	0
105°	0	9	25	36	40	0
115°	0	4	18	28	31	0
125°	1	1	10	19	22	0
135°	1	0	3	10	12	0
145°	1	1	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°	445.5	445.5	445.5	445.5	445.5
2.5°	446.6	446.1	442.8	446.1	446.1
5°	445.0	444.4	442.2	445.0	445.0
7.5°	441.7	441.7	439.5	442.8	442.2
10°	437.3	437.8	435.6	438.9	438.9
12.5°	431.2	431.7	430.6	433.9	433.9
15°	424.0	425.1	424.6	427.9	427.3
17.5°	415.8	418.0	416.9	420.2	419.6
20°	406.9	409.1	408.0	411.9	411.9
22.5°	396.5	399.2	399.2	402.5	402.5
25°	385.4	388.7	388.7	392.6	392.0
27.5°	374.4	377.7	377.7	381.6	381.0
30°	360.6	365.0	366.1	370.5	370.5
32.5°	347.4	352.3	354.5	358.4	359.5
35°	334.1	338.6	341.9	346.8	347.9
37.5°	318.7	325.3	329.2	335.2	335.8
40°	304.4	311.0	315.9	322.6	323.7
42.5°	288.4	296.7	302.7	309.9	311.0
45°	273.5	281.8	289.5	296.7	298.3
47.5°	256.9	266.9	275.7	283.4	285.6
50°	241.0	251.4	261.9	270.2	271.8
52.5°	224.4	236.0	248.1	256.4	259.2
55°	207.9	220.0	233.2	242.1	245.4
57.5°	191.3	204.6	217.8	227.7	231.0
60°	174.8	188.0	202.9	212.8	216.7
62.5°	158.3	171.5	187.5	198.0	201.8
65°	141.2	155.5	172.0	183.1	186.4
67.5°	123.5	139.0	155.5	167.1	170.4
70°	106.4	122.4	139.5	151.6	155.5
72.5°	89.3	105.9	124.1	136.2	140.1
75°	72.8	89.9	108.6	120.8	125.2
77.5°	56.2	74.4	93.2	105.9	110.3
80°	40.8	59.6	78.8	91.5	96.5
82.5°	27.6	46.3	66.2	79.4	83.3
85°	16.0	34.7	54.6	67.8	72.2
87.5°	7.2	25.4	45.2	57.9	62.3
90°	0.0	17.6	36.9	50.2	54.0
92.5°	0.0	16.0	34.7	47.4	51.8
95°	0.0	14.3	32.5	45.2	49.6
97.5°	0.0	13.2	30.9	43.0	47.4
100°	0.0	11.6	29.2	40.8	44.7
102.5°	0.0	10.5	27.0	38.6	42.5
105°	0.0	8.8	25.4	36.4	40.3
107.5°	0.6	7.7	23.2	34.2	38.0
110°	0.6	6.6	21.5	32.0	35.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	5.0	19.3	29.8	33.1
115°	0.0	3.9	17.6	27.6	30.9
117.5°	0.0	2.8	15.4	25.4	28.7
120°	0.6	1.7	13.8	23.2	25.9
122.5°	0.6	0.6	12.1	20.4	23.7
125°	0.6	0.6	9.9	18.7	21.5
127.5°	0.0	0.6	8.3	16.5	19.3
130°	0.6	0.0	6.6	14.3	17.1
132.5°	0.6	0.6	5.0	12.1	14.9
135°	0.6	0.0	3.3	9.9	12.1
137.5°	0.6	0.0	2.2	7.7	9.9
140°	0.6	0.6	0.6	6.1	7.7
142.5°	0.6	0.6	0.0	3.9	5.5
145°	0.6	0.6	0.0	2.2	3.9
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)