

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: P231580

Luminaire Tested: **S125-DR-LO-30-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231580  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29678)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125-DR-LO-30-X-0048-1-U-DD-3-W  
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1477.3 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.24 / 1.52  
Luminous Opening: Rectangular (W 3.92' x L: 0.39' x H: 0')  
CIE Type: Direct

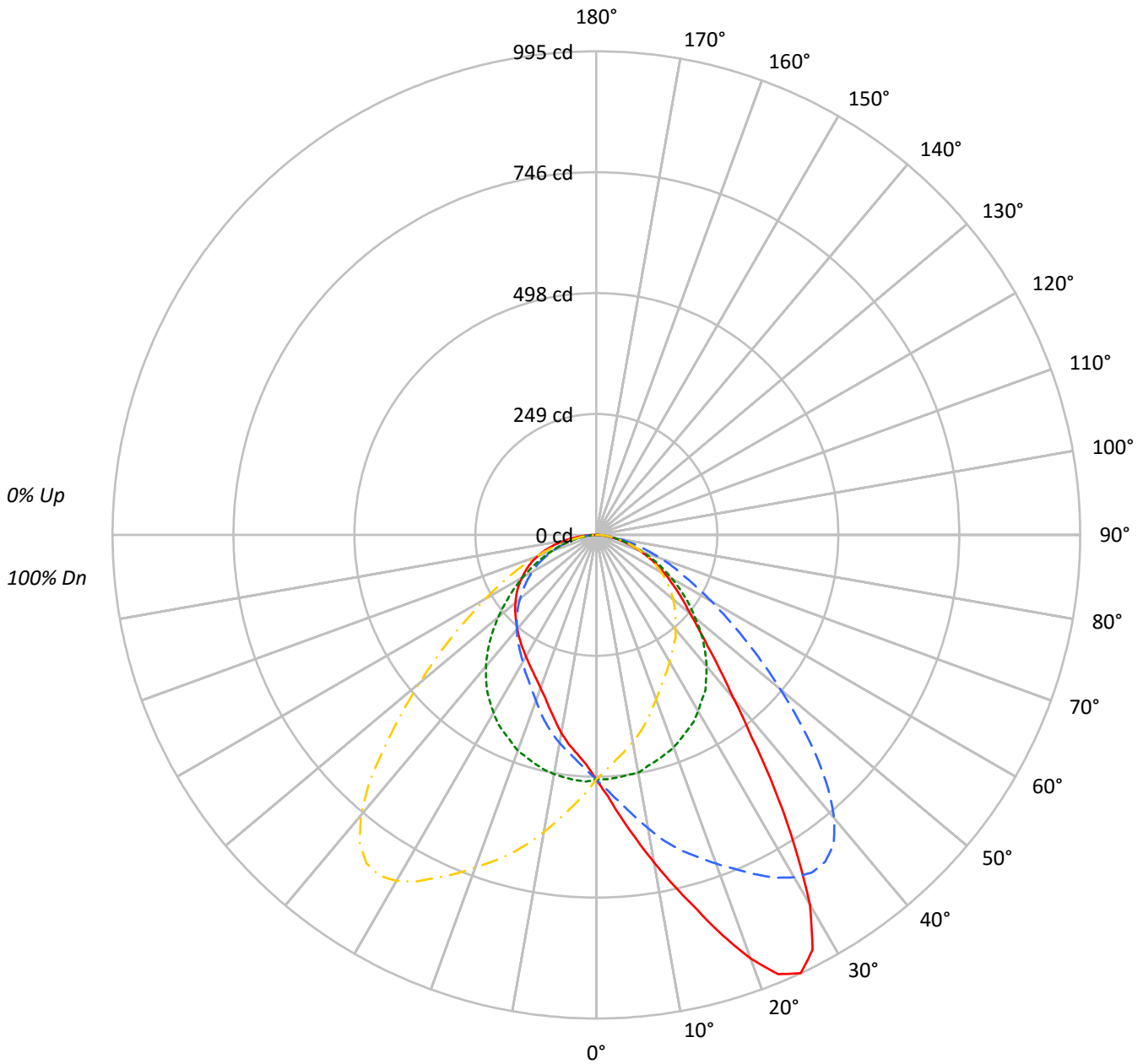
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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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	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					100			
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26					26			

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

	0°	90°	180°	270°
0°	3544	3544	3544	3544
5°	4127	3544	3199	3581
10°	4896	3554	2962	3575
15°	5817	3503	2701	3555
20°	6956	3487	2514	3544
25°	7736	3446	2408	3490
30°	7147	3402	2354	3437
35°	5507	3361	2330	3369
40°	4024	3241	2326	3250
45°	3223	3095	2341	3086
50°	2752	2907	2382	2886
55°	2514	2729	2437	2670
60°	2330	2516	2496	2462
65°	2148	2321	2574	2251
70°	1941	2069	2654	2001
75°	1715	1830	2682	1778
80°	1420	1497	2634	1481
85°	1035	1148	2490	1148



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.1	3.3
10°-20°	151.8	10.3
20°-30°	252.4	17.1
30°-40°	293.9	19.9
40°-50°	264.9	17.9
50°-60°	212.6	14.4
60°-70°	149.8	10.1
70°-80°	81.1	5.5
80°-90°	21.6	1.5
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°	453.3	30.7
0°-40°	747.2	50.6
0°-60°	1224.7	82.9
0°-90°	1477.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1477.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	503	503	503	503	503	
5°	583	501	452	506	583	59
15°	797	480	370	487	797	231
25°	995	443	310	449	995	444
35°	640	391	271	392	640	400
45°	323	311	235	310	323	255
55°	205	222	198	217	205	184
65°	129	139	154	135	129	128
75°	63	67	98	65	63	67
85°	13	14	31	14	13	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9
2.5°	537.9	533.2	526.1	511.4	503.4	487.7	482.5	477.8	472.6	475.9	483.9
5°	583.4	570.1	552.1	522.3	501.0	475.4	464.5	456.0	452.2	454.6	465.5
7.5°	631.7	613.2	581.5	534.1	498.2	463.6	448.4	438.0	434.2	436.6	449.4
10°	684.2	657.7	612.7	546.9	496.7	454.6	432.3	418.6	413.9	417.7	434.7
12.5°	739.6	702.2	644.9	554.5	487.3	439.4	415.8	397.3	391.1	396.8	418.6
15°	797.4	756.7	671.5	563.0	480.2	426.6	397.8	376.5	370.3	376.5	401.1
17.5°	863.7	809.3	694.7	569.7	472.6	412.9	377.4	356.6	350.9	357.0	382.1
20°	927.6	862.8	719.8	574.4	465.0	400.6	359.9	339.5	335.3	339.0	362.7
22.5°	978.3	910.1	743.9	570.6	454.1	383.1	342.4	325.8	321.5	323.9	345.7
25°	994.9	950.8	770.0	564.9	443.2	366.5	327.2	315.8	309.7	311.6	330.0
27.5°	962.7	957.0	795.1	555.0	433.3	350.4	314.9	303.5	299.3	300.7	317.3
30°	878.4	922.9	813.5	543.6	418.1	336.7	300.7	290.7	289.3	290.7	302.1
32.5°	758.6	854.7	823.9	527.5	403.4	318.2	288.9	280.3	279.9	278.9	289.8
35°	640.2	750.5	820.6	510.9	390.7	303.5	276.5	269.9	270.9	269.0	278.0
37.5°	525.6	638.3	801.7	493.9	370.8	292.6	267.5	260.0	261.9	259.5	267.1
40°	437.5	537.0	761.4	474.0	352.3	275.6	252.9	250.5	252.9	249.5	254.3
42.5°	375.5	452.2	704.6	454.1	331.9	262.3	241.0	240.6	243.9	240.1	242.0
45°	323.4	382.6	637.8	432.3	310.6	247.2	229.2	230.1	234.9	230.1	230.1
47.5°	284.6	328.6	564.0	409.1	289.3	233.4	217.8	220.2	226.3	220.2	218.3
50°	251.0	286.5	493.4	384.5	265.2	220.7	206.0	209.8	217.3	209.3	205.0
52.5°	227.3	252.4	428.5	358.0	243.9	205.5	193.7	198.9	207.9	198.9	191.8
55°	204.6	223.5	369.8	330.0	222.1	190.8	180.4	188.0	198.4	188.5	179.0
57.5°	183.7	199.4	317.7	300.7	199.8	176.2	167.6	176.6	187.5	176.6	165.7
60°	165.3	177.1	272.8	270.4	178.5	160.5	154.4	164.8	177.1	164.8	152.0
62.5°	146.8	156.3	233.0	239.6	158.2	144.4	140.6	152.0	165.7	152.0	139.2
65°	128.8	136.8	197.9	208.4	139.2	128.3	126.9	138.7	154.4	138.7	125.0
67.5°	110.8	117.0	169.5	179.0	118.9	111.3	111.3	125.5	142.5	125.0	108.9
70°	94.2	99.0	140.6	151.1	100.4	95.7	97.1	110.8	128.8	109.9	94.7
72.5°	78.1	81.9	113.2	122.2	83.3	80.0	82.4	97.1	114.1	96.1	81.4
75°	63.0	65.8	90.0	98.0	67.2	65.3	68.2	82.4	98.5	81.9	67.2
77.5°	48.8	51.1	68.2	74.3	51.1	51.1	54.0	69.6	81.9	68.7	53.5
80°	35.0	36.9	49.2	53.5	36.9	37.9	41.2	53.5	64.9	53.0	40.2
82.5°	23.2	24.6	32.7	35.5	24.6	25.6	28.9	40.7	47.4	38.8	28.4
85°	12.8	13.7	18.9	20.4	14.2	15.6	18.5	25.6	30.8	26.5	18.0
87.5°	4.7	5.2	8.0	8.5	6.2	7.1	9.5	13.7	16.1	14.2	9.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	502.9	502.9	502.9	502.9	502.9	502.9
2.5°	490.1	508.1	516.6	532.7	539.8	537.9
5°	477.8	506.2	528.5	560.2	577.7	583.4
7.5°	466.4	503.4	541.2	590.0	622.7	631.7
10°	452.7	499.6	553.1	620.8	668.1	684.2
12.5°	442.3	494.8	565.9	650.6	716.0	739.6
15°	428.1	487.3	573.0	678.6	765.2	797.4
17.5°	414.8	479.2	579.6	703.7	820.1	863.7
20°	400.1	472.6	582.4	727.8	876.5	927.6
22.5°	384.5	459.8	581.0	754.3	928.1	978.3
25°	367.0	448.9	574.4	778.0	961.7	994.9
27.5°	350.9	438.0	564.0	804.0	965.0	962.7
30°	335.3	422.4	551.7	822.0	927.6	878.4
32.5°	319.2	407.2	535.1	831.0	848.6	758.6
35°	304.0	391.6	518.5	824.4	742.0	640.2
37.5°	289.3	372.7	500.5	799.3	626.5	525.6
40°	274.6	353.3	481.1	752.4	524.2	437.5
42.5°	261.4	331.9	461.2	691.3	441.3	375.5
45°	246.7	309.7	438.5	613.7	376.5	323.4
47.5°	234.4	286.5	415.3	542.2	323.4	284.6
50°	219.7	263.3	389.7	474.9	281.3	251.0
52.5°	204.1	240.1	361.8	414.3	247.7	227.3
55°	188.9	217.3	332.9	357.5	220.2	204.6
57.5°	175.2	196.0	302.6	306.8	196.0	183.7
60°	158.6	174.7	271.3	262.8	173.3	165.3
62.5°	144.0	154.4	239.6	225.4	152.5	146.8
65°	126.4	135.0	207.9	192.3	133.5	128.8
67.5°	109.4	115.1	178.0	160.5	114.1	110.8
70°	95.2	97.1	147.3	133.1	96.1	94.2
72.5°	79.6	81.9	120.7	106.5	79.6	78.1
75°	64.4	65.3	94.7	84.3	64.4	63.0
77.5°	50.2	50.2	71.0	63.5	49.2	48.8
80°	36.9	36.5	50.7	45.5	36.0	35.0
82.5°	25.1	24.1	33.1	29.8	23.7	23.2
85°	15.2	14.2	18.9	17.5	13.3	12.8
87.5°	7.6	7.1	8.0	7.1	4.7	4.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)