

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: P231649

Luminaire Tested: **S125-DR-2-35-X-0048-1-U-DD-4-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231649  
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-2-35-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**

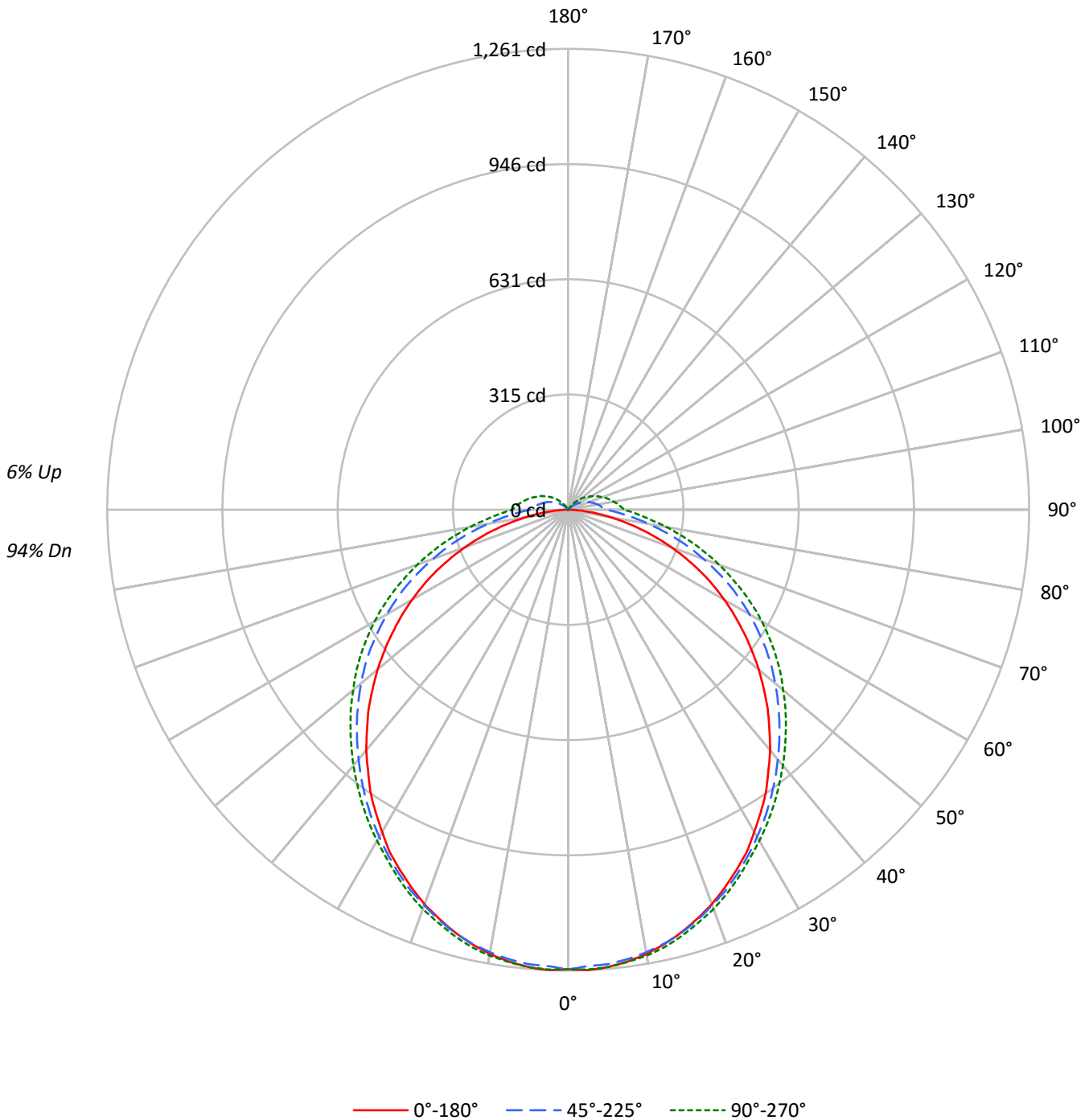
Lumens per Lamp: N/A  
Luminaire Lumens: 3964.1 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.92' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 42.6  
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°	8863	8863	8863
5°	8869	8704	8723
10°	8800	8549	8544
15°	8683	8372	8325
20°	8549	8146	8091
25°	8377	7919	7826
30°	8183	7674	7577
35°	7996	7437	7350
40°	7766	7201	7128
45°	7534	6984	6915
50°	7273	6767	6706
55°	6997	6539	6521
60°	6707	6269	6294
65°	6355	5972	6016
70°	5847	5571	5700
75°	5184	5155	5354
80°	4172	4652	4999
85°	2933	4299	4790



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.1	3.0
10°-20°	338.9	8.5
20°-30°	506.9	12.8
30°-40°	604.5	15.2
40°-50°	628.5	15.9
50°-60°	581.9	14.7
60°-70°	470.3	11.9
70°-80°	312.4	7.9
80°-90°	159.0	4.0
90°-100°	90.4	2.3
100°-110°	67.9	1.7
110°-120°	45.3	1.1
120°-130°	25.7	0.6
130°-140°	11.2	0.3
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	964.9	24.3
0°-40°	1569.4	39.6
0°-60°	2779.8	70.1
0°-90°	3721.5	93.9
90°-120°	203.6	5.1
90°-150°	242.6	6.1
90°-180°	243.0	6.1
0°-180°	3964.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1258	1258	1258	1258	1258	
5°	1256	1255	1248	1256	1256	119
15°	1197	1200	1199	1208	1206	337
25°	1088	1097	1097	1108	1107	501
35°	943	956	965	979	982	589
45°	772	795	817	838	842	595
55°	587	621	658	683	693	525
65°	398	439	486	517	526	394
75°	206	254	307	341	353	217
85°	45	98	154	192	204	52
90°	0	50	104	142	152	3
95°	0	40	92	128	140	0
105°	0	25	72	103	114	1
115°	0	11	50	78	87	0
125°	2	2	28	53	61	1
135°	2	0	9	28	34	1
145°	2	2	0	6	11	1
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°	1257.7	1257.7	1257.7	1257.7	1257.7
2.5°	1260.9	1259.3	1250.0	1259.3	1259.3
5°	1256.2	1254.6	1248.4	1256.2	1256.2
7.5°	1246.9	1246.9	1240.6	1250.0	1248.4
10°	1234.4	1236.0	1229.7	1239.1	1239.1
12.5°	1217.3	1218.8	1215.7	1225.1	1225.1
15°	1197.0	1200.2	1198.6	1207.9	1206.4
17.5°	1173.7	1179.9	1176.8	1186.1	1184.6
20°	1148.8	1155.0	1151.9	1162.8	1162.8
22.5°	1119.2	1127.0	1127.0	1136.3	1136.3
25°	1088.1	1097.4	1097.4	1108.3	1106.8
27.5°	1056.9	1066.3	1066.3	1077.2	1075.6
30°	1018.0	1030.5	1033.6	1046.0	1046.0
32.5°	980.7	994.7	1000.9	1011.8	1014.9
35°	943.3	955.8	965.1	979.1	982.2
37.5°	899.7	918.4	929.3	946.4	948.0
40°	859.3	877.9	891.9	910.6	913.7
42.5°	814.1	837.5	854.6	874.8	877.9
45°	772.1	795.4	817.2	837.5	842.1
47.5°	725.4	753.4	778.3	800.1	806.3
50°	680.2	709.8	739.4	762.7	767.4
52.5°	633.5	666.2	700.5	723.8	731.6
55°	586.8	621.1	658.5	683.4	692.7
57.5°	540.1	577.5	614.9	642.9	652.2
60°	493.4	530.8	572.8	600.9	611.8
62.5°	446.7	484.1	529.3	558.8	569.7
65°	398.5	439.0	485.7	516.8	526.1
67.5°	348.7	392.3	439.0	471.7	481.0
70°	300.4	345.6	393.8	428.1	439.0
72.5°	252.2	298.9	350.2	384.5	395.4
75°	205.5	253.7	306.7	340.9	353.4
77.5°	158.8	210.1	263.1	298.9	311.3
80°	115.2	168.1	222.6	258.4	272.4
82.5°	77.8	130.8	186.8	224.2	235.0
85°	45.1	98.1	154.1	191.5	203.9
87.5°	20.2	71.6	127.6	163.4	175.9
90°	0.0	49.8	104.3	141.7	152.5
92.5°	0.0	45.1	98.1	133.9	146.3
95°	0.0	40.5	91.8	127.6	140.1
97.5°	0.0	37.4	87.2	121.4	133.9
100°	0.0	32.7	82.5	115.2	126.1
102.5°	0.0	29.6	76.3	109.0	119.9
105°	0.0	24.9	71.6	102.7	113.6
107.5°	1.6	21.8	65.4	96.5	107.4
110°	1.6	18.7	60.7	90.3	99.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	14.0	54.5	84.1	93.4
115°	0.0	10.9	49.8	77.8	87.2
117.5°	0.0	7.8	43.6	71.6	80.9
120°	1.6	4.7	38.9	65.4	73.2
122.5°	1.6	1.6	34.2	57.6	66.9
125°	1.6	1.6	28.0	52.9	60.7
127.5°	0.0	1.6	23.3	46.7	54.5
130°	1.6	0.0	18.7	40.5	48.3
132.5°	1.6	1.6	14.0	34.2	42.0
135°	1.6	0.0	9.3	28.0	34.2
137.5°	1.6	0.0	6.2	21.8	28.0
140°	1.6	1.6	1.6	17.1	21.8
142.5°	1.6	1.6	0.0	10.9	15.6
145°	1.6	1.6	0.0	6.2	10.9
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)