

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: G3-1802-639-56

Luminaire Tested: **S125DR-H850D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: G3-1802-639-56  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-H850D835-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3359.6 lumens  
Efficiency: N/A  
Efficacy: 131.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')  
CIE Type: Direct

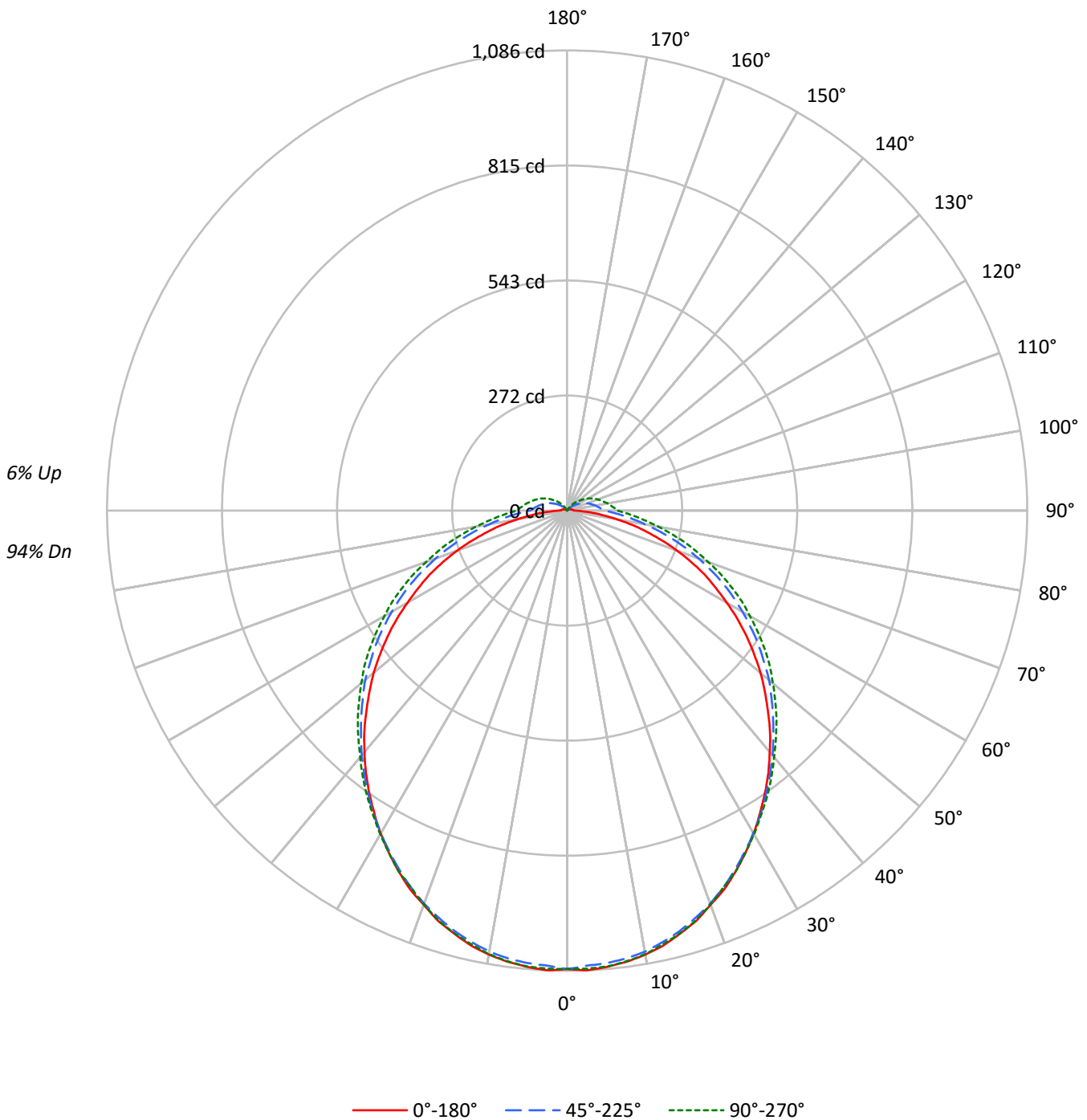
Input Watts (W): 25.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

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

	0°	45°	90°
0°	7690	7690	7690
5°	7698	7539	7564
10°	7650	7411	7394
15°	7557	7235	7183
20°	7430	7040	6942
25°	7298	6813	6705
30°	7133	6583	6445
35°	6958	6358	6213
40°	6780	6140	5981
45°	6593	5922	5791
50°	6425	5742	5590
55°	6215	5519	5405
60°	5961	5278	5170
65°	5755	5023	4939
70°	5415	4710	4639
75°	4957	4341	4374
80°	4414	3943	4039
85°	3927	3687	3844



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	3.0
10°-20°	290.9	8.7
20°-30°	433.0	12.9
30°-40°	513.0	15.3
40°-50°	530.8	15.8
50°-60°	489.5	14.6
60°-70°	395.6	11.8
70°-80°	264.4	7.9
80°-90°	136.4	4.1
90°-100°	76.5	2.3
100°-110°	56.8	1.7
110°-120°	37.8	1.1
120°-130°	21.1	0.6
130°-140°	9.5	0.3
140°-150°	2.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	826.3	24.6
0°-40°	1339.3	39.9
0°-60°	2359.6	70.2
0°-90°	3155.9	93.9
90°-120°	171.0	5.1
90°-150°	203.6	6.1
90°-180°	204.0	6.1
0°-180°	3359.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1081	1080	1072	1080	1080	103
15°	1033	1036	1027	1033	1032	291
25°	940	944	936	941	940	433
35°	814	820	818	822	823	509
45°	670	681	687	698	699	518
55°	517	533	551	564	569	462
65°	358	379	405	423	428	353
75°	195	224	256	278	286	207
85°	60	94	131	154	162	62
90°	17	50	87	111	119	12
95°	14	42	77	100	107	11
105°	10	27	59	80	87	11
115°	7	14	41	60	67	7
125°	4	4	24	39	46	4
135°	2	2	9	23	27	2
145°	1	0	0	6	9	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°	1082	1082	1082	1082	1082
2.5°	1086	1083	1075	1083	1082
5°	1081	1080	1072	1080	1080
7.5°	1074	1073	1066	1074	1073
10°	1064	1064	1057	1063	1063
12.5°	1051	1051	1043	1050	1048
15°	1033	1036	1027	1033	1032
17.5°	1015	1015	1008	1013	1013
20°	990	994	987	992	989
22.5°	968	970	963	968	963
25°	940	944	936	941	940
27.5°	911	914	908	914	911
30°	880	883	879	883	882
32.5°	847	853	850	853	852
35°	814	820	818	822	823
37.5°	780	786	786	791	792
40°	744	752	754	761	760
42.5°	709	717	720	729	729
45°	670	681	687	698	699
47.5°	633	645	654	664	666
50°	596	607	622	632	634
52.5°	556	570	585	599	603
55°	517	533	551	564	569
57.5°	477	494	514	530	534
60°	435	455	478	494	498
62.5°	396	418	442	459	465
65°	358	379	405	423	428
67.5°	317	340	367	387	392
70°	276	301	330	349	354
72.5°	234	262	293	314	320
75°	195	224	256	278	286
77.5°	158	188	220	243	250
80°	121	152	187	211	218
82.5°	88	121	157	181	188
85°	60	94	131	154	162
87.5°	37	70	108	131	139
90°	17	50	87	111	119
92.5°	15	46	82	106	113
95°	14	42	77	100	107
97.5°	13	38	72	95	102
100°	12	34	68	90	97
102.5°	11	31	63	85	91
105°	10	27	59	80	87
107.5°	9	23	55	75	82
110°	8	20	50	70	77



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	7	17	46	65	72
115°	7	14	41	60	67
117.5°	6	11	36	55	62
120°	5	8	32	50	57
122.5°	5	6	28	45	52
125°	4	4	24	39	46
127.5°	4	3	20	35	40
130°	3	2	17	31	36
132.5°	3	2	13	27	32
135°	2	2	9	23	27
137.5°	2	1	6	18	23
140°	1	1	2	14	18
142.5°	1	1	1	10	14
145°	1	0	0	6	9
147.5°	1	0	0	2	5
150°	0	0	0	0	1
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)