

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: P242851

Luminaire Tested: **S125DR-S850D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242851
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-S850D840-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3190.9 lumens
Efficiency: N/A
Efficacy: 120.9 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

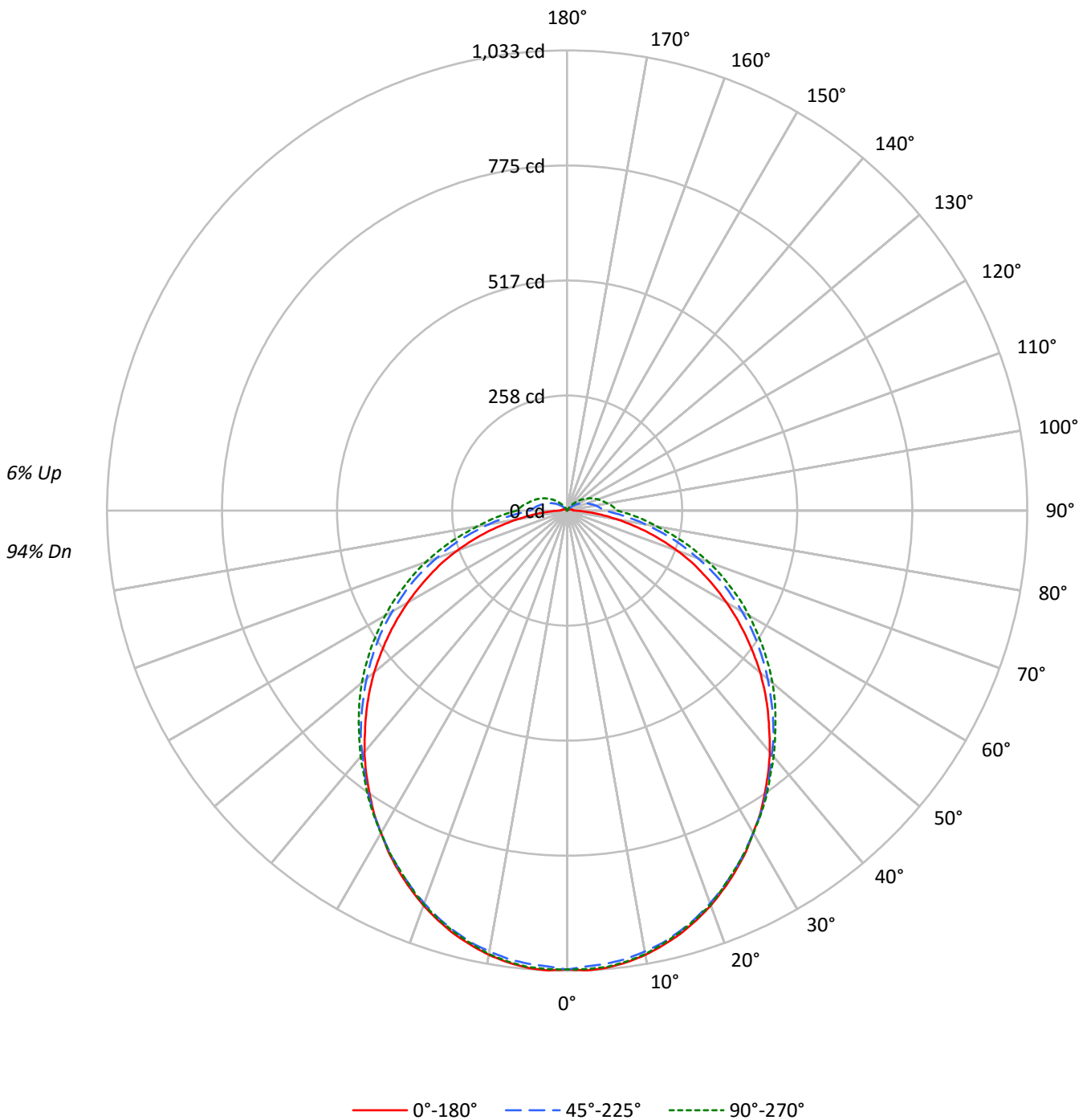
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7321	7321	7321
5°	7335	7180	7200
10°	7282	7045	7031
15°	7196	6886	6818
20°	7078	6692	6606
25°	6939	6483	6346
30°	6770	6255	6110
35°	6613	6044	5893
40°	6451	5823	5674
45°	6270	5633	5480
50°	6097	5425	5307
55°	5888	5230	5103
60°	5660	5006	4896
65°	5422	4773	4661
70°	5153	4453	4420
75°	4723	4144	4123
80°	4162	3768	3798
85°	3633	3496	3666



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	3.1
10°-20°	276.7	8.7
20°-30°	411.5	12.9
30°-40°	487.3	15.3
40°-50°	503.8	15.8
50°-60°	464.1	14.5
60°-70°	375.2	11.8
70°-80°	251.0	7.9
80°-90°	129.8	4.1
90°-100°	73.1	2.3
100°-110°	53.9	1.7
110°-120°	36.1	1.1
120°-130°	20.4	0.6
130°-140°	8.9	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	785.6	24.6
0°-40°	1273.0	39.9
0°-60°	2240.8	70.2
0°-90°	2996.8	93.9
90°-120°	163.0	5.1
90°-150°	194.1	6.1
90°-180°	194.0	6.1
0°-180°	3190.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	1030	1028	1021	1029	1028	98
15°	984	985	978	984	980	277
25°	894	897	891	895	890	411
35°	774	781	778	781	781	484
45°	637	648	653	660	662	492
55°	490	506	522	533	537	438
65°	337	360	385	400	404	335
75°	186	212	244	265	270	197
85°	56	89	124	146	154	58
90°	16	48	83	106	113	11
95°	13	39	74	96	103	10
105°	9	25	56	76	83	10
115°	6	13	39	58	64	6
125°	4	3	23	39	44	3
135°	2	1	8	21	26	2
145°	1	0	0	5	9	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°	1030.1	1030.1	1030.1	1030.1	1030.1
2.5°	1033.1	1031.1	1024.0	1031.1	1030.1
5°	1030.1	1028.0	1021.0	1029.1	1028.0
7.5°	1023.0	1022.0	1014.9	1022.0	1021.0
10°	1012.9	1012.9	1004.8	1011.9	1010.9
12.5°	998.8	999.8	993.7	998.8	995.7
15°	983.6	984.6	977.5	983.6	979.6
17.5°	964.4	966.4	959.4	964.4	961.4
20°	943.2	945.2	938.2	941.2	941.2
22.5°	919.0	923.0	914.9	919.0	915.9
25°	893.7	896.8	890.7	894.7	889.7
27.5°	866.5	870.5	863.4	866.5	864.4
30°	835.2	841.2	835.2	837.2	836.2
32.5°	806.9	811.9	807.9	809.9	808.9
35°	773.6	780.6	777.6	780.6	780.6
37.5°	741.2	747.3	746.3	750.3	749.3
40°	707.9	716.0	715.0	719.0	721.0
42.5°	671.6	682.7	685.7	690.7	690.7
45°	637.2	648.3	653.4	660.5	661.5
47.5°	601.9	612.0	620.1	630.2	632.2
50°	565.5	576.6	587.7	598.8	601.9
52.5°	527.1	541.3	555.4	567.5	569.6
55°	489.8	505.9	522.1	533.2	537.2
57.5°	451.4	470.6	488.8	500.9	503.9
60°	413.0	433.2	453.4	468.6	471.6
62.5°	375.7	395.9	418.1	435.3	439.3
65°	337.3	360.5	384.8	399.9	403.9
67.5°	301.9	324.2	348.4	366.6	371.6
70°	262.6	285.8	312.0	331.2	337.3
72.5°	224.2	248.4	277.7	298.9	303.0
75°	185.8	212.1	244.4	264.6	269.6
77.5°	148.5	178.7	209.0	231.3	235.3
80°	114.1	144.4	178.7	201.0	205.0
82.5°	82.8	115.1	150.5	171.7	179.8
85°	55.5	88.9	124.2	146.4	154.5
87.5°	35.3	67.7	102.0	125.2	132.3
90°	16.2	48.5	82.8	106.0	113.1
92.5°	14.1	43.4	78.8	101.0	108.1
95°	13.1	39.4	73.7	95.9	103.0
97.5°	12.1	36.4	69.7	90.9	98.0
100°	11.1	32.3	64.6	85.8	91.9
102.5°	10.1	29.3	60.6	80.8	86.8
105°	9.1	25.2	55.5	75.7	82.8
107.5°	8.1	22.2	51.5	71.7	77.8
110°	7.1	19.2	47.5	66.7	73.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.1	16.2	43.4	61.6	68.7
115°	6.1	13.1	39.4	57.6	63.6
117.5°	5.0	10.1	35.3	52.5	59.6
120°	5.0	8.1	31.3	48.5	54.5
122.5°	4.0	5.0	27.3	43.4	49.5
125°	4.0	3.0	23.2	39.4	44.4
127.5°	3.0	2.0	19.2	34.3	40.4
130°	3.0	2.0	16.2	30.3	35.3
132.5°	2.0	2.0	12.1	26.3	30.3
135°	2.0	1.0	8.1	21.2	26.3
137.5°	2.0	1.0	5.0	17.2	21.2
140°	1.0	1.0	2.0	13.1	17.2
142.5°	1.0	0.0	0.0	9.1	13.1
145°	1.0	0.0	0.0	5.0	9.1
147.5°	0.0	0.0	0.0	2.0	4.0
150°	0.0	0.0	0.0	0.0	1.0
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)