

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: P243702

Luminaire Tested: **S125DR-H850D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243702
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-H850D830-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2956.6 lumens
Efficiency: N/A
Efficacy: 125.3 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

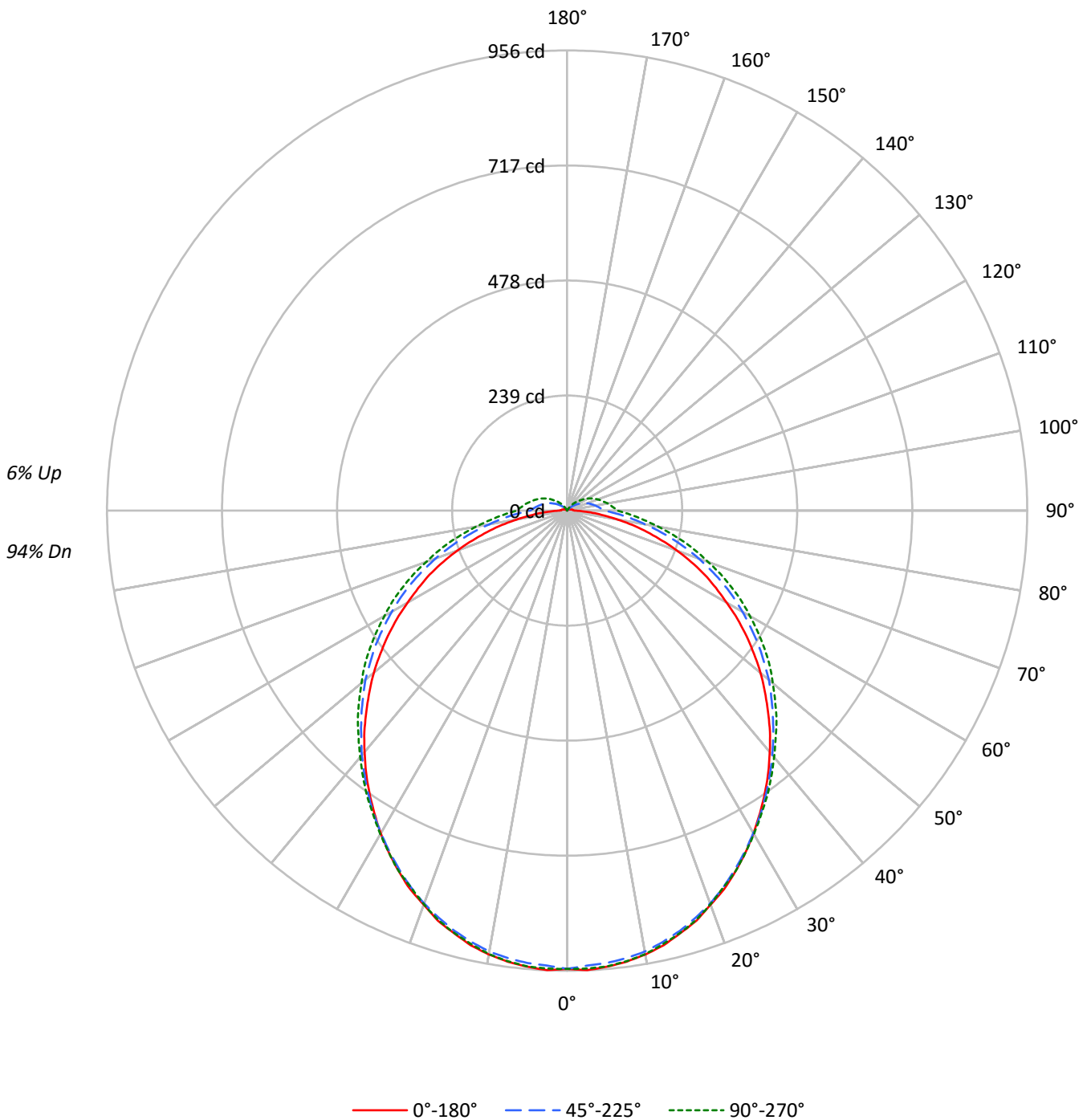
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6768	6768	6768
5°	6774	6634	6656
10°	6732	6522	6507
15°	6651	6367	6321
20°	6538	6195	6109
25°	6423	5996	5900
30°	6277	5793	5672
35°	6123	5596	5468
40°	5967	5403	5263
45°	5801	5212	5096
50°	5655	5053	4919
55°	5470	4857	4756
60°	5246	4645	4550
65°	5066	4420	4347
70°	4766	4145	4082
75°	4362	3820	3849
80°	3885	3470	3553
85°	3456	3246	3383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	3.0
10°-20°	256.0	8.7
20°-30°	381.1	12.9
30°-40°	451.5	15.3
40°-50°	467.1	15.8
50°-60°	430.8	14.6
60°-70°	348.2	11.8
70°-80°	232.6	7.9
80°-90°	120.0	4.1
90°-100°	67.3	2.3
100°-110°	49.9	1.7
110°-120°	33.3	1.1
120°-130°	18.6	0.6
130°-140°	8.3	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°	727.2	24.6
0°-40°	1178.6	39.9
0°-60°	2076.5	70.2
0°-90°	2777.3	93.9
90°-120°	150.5	5.1
90°-150°	179.2	6.1
90°-180°	179.0	6.1
0°-180°	2956.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	951	950	943	950	950	90
15°	909	912	904	909	908	256
25°	827	831	824	828	827	381
35°	716	722	720	723	724	448
45°	590	599	605	614	615	456
55°	455	469	485	496	501	406
65°	315	334	356	372	377	311
75°	172	197	225	245	252	182
85°	53	83	115	136	143	54
90°	15	44	77	98	105	10
95°	12	37	68	88	94	10
105°	9	24	52	70	77	9
115°	6	12	36	53	59	6
125°	4	4	21	34	40	3
135°	2	2	8	20	24	2
145°	1	0	0	5	8	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°	952.2	952.2	952.2	952.2	952.2
2.5°	955.7	953.1	946.0	953.1	952.2
5°	951.3	950.4	943.4	950.4	950.4
7.5°	945.2	944.3	938.1	945.2	944.3
10°	936.4	936.4	930.2	935.5	935.5
12.5°	924.9	924.9	917.9	924.0	922.3
15°	909.1	911.7	903.8	909.1	908.2
17.5°	893.2	893.2	887.1	891.5	891.5
20°	871.2	874.8	868.6	873.0	870.4
22.5°	851.9	853.6	847.5	851.9	847.5
25°	827.2	830.8	823.7	828.1	827.2
27.5°	801.7	804.4	799.1	804.4	801.7
30°	774.4	777.1	773.5	777.1	776.2
32.5°	745.4	750.7	748.0	750.7	749.8
35°	716.3	721.6	719.9	723.4	724.3
37.5°	686.4	691.7	691.7	696.1	697.0
40°	654.7	661.8	663.5	669.7	668.8
42.5°	623.9	631.0	633.6	641.5	641.5
45°	589.6	599.3	604.6	614.3	615.1
47.5°	557.1	567.6	575.5	584.3	586.1
50°	524.5	534.2	547.4	556.2	557.9
52.5°	489.3	501.6	514.8	527.1	530.7
55°	455.0	469.1	484.9	496.3	500.7
57.5°	419.8	434.7	452.3	466.4	469.9
60°	382.8	400.4	420.7	434.7	438.3
62.5°	348.5	367.9	389.0	403.9	409.2
65°	315.1	333.5	356.4	372.3	376.7
67.5°	279.0	299.2	323.0	340.6	345.0
70°	242.9	264.9	290.4	307.1	311.5
72.5°	205.9	230.6	257.8	276.3	281.6
75°	171.6	197.1	225.3	244.6	251.7
77.5°	139.0	165.4	193.6	213.8	220.0
80°	106.5	133.8	164.6	185.7	191.8
82.5°	77.4	106.5	138.2	159.3	165.4
85°	52.8	82.7	115.3	135.5	142.6
87.5°	32.6	61.6	95.0	115.3	122.3
90°	15.0	44.0	76.6	97.7	104.7
92.5°	13.2	40.5	72.2	93.3	99.4
95°	12.3	37.0	67.8	88.0	94.2
97.5°	11.4	33.4	63.4	83.6	89.8
100°	10.6	29.9	59.8	79.2	85.4
102.5°	9.7	27.3	55.4	74.8	80.1
105°	8.8	23.8	51.9	70.4	76.6
107.5°	7.9	20.2	48.4	66.0	72.2
110°	7.0	17.6	44.0	61.6	67.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.2	15.0	40.5	57.2	63.4
115°	6.2	12.3	36.1	52.8	59.0
117.5°	5.3	9.7	31.7	48.4	54.6
120°	4.4	7.0	28.2	44.0	50.2
122.5°	4.4	5.3	24.6	39.6	45.8
125°	3.5	3.5	21.1	34.3	40.5
127.5°	3.5	2.6	17.6	30.8	35.2
130°	2.6	1.8	15.0	27.3	31.7
132.5°	2.6	1.8	11.4	23.8	28.2
135°	1.8	1.8	7.9	20.2	23.8
137.5°	1.8	0.9	5.3	15.8	20.2
140°	0.9	0.9	1.8	12.3	15.8
142.5°	0.9	0.9	0.9	8.8	12.3
145°	0.9	0.0	0.0	5.3	7.9
147.5°	0.9	0.0	0.0	1.8	4.4
150°	0.0	0.0	0.0	0.0	0.9
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)