

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: P242866

Luminaire Tested: **S125DR-S850D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242866
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-S850D940-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2817.6 lumens
Efficiency: N/A
Efficacy: 106.7 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

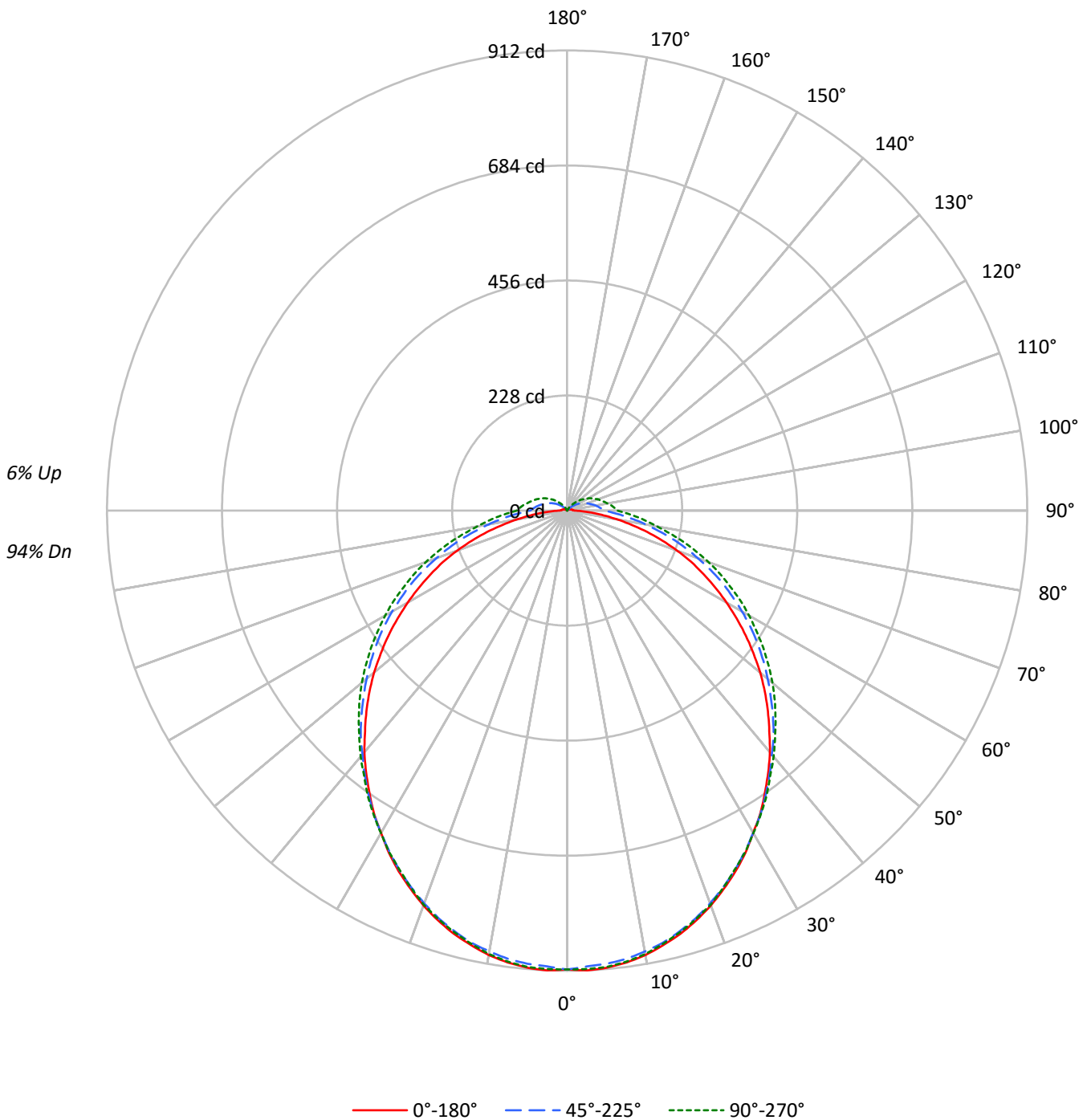
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6464	6464	6464
5°	6477	6340	6358
10°	6430	6222	6208
15°	6354	6081	6021
20°	6251	5909	5833
25°	6128	5725	5604
30°	5978	5523	5395
35°	5839	5337	5204
40°	5697	5141	5011
45°	5537	4973	4839
50°	5384	4791	4686
55°	5200	4618	4506
60°	4998	4421	4323
65°	4787	4213	4117
70°	4548	3932	3902
75°	4172	3659	3641
80°	3677	3327	3353
85°	3207	3088	3236



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	3.1
10°-20°	244.3	8.7
20°-30°	363.3	12.9
30°-40°	430.3	15.3
40°-50°	444.9	15.8
50°-60°	409.8	14.5
60°-70°	331.3	11.8
70°-80°	221.7	7.9
80°-90°	114.6	4.1
90°-100°	64.5	2.3
100°-110°	47.6	1.7
110°-120°	31.8	1.1
120°-130°	18.0	0.6
130°-140°	7.9	0.3
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	693.7	24.6
0°-40°	1124.0	39.9
0°-60°	1978.7	70.2
0°-90°	2646.2	93.9
90°-120°	144.0	5.1
90°-150°	171.5	6.1
90°-180°	171.0	6.1
0°-180°	2817.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	910	908	902	909	908	86
15°	868	869	863	868	865	245
25°	789	792	786	790	786	363
35°	683	689	687	689	689	428
45°	563	572	577	583	584	434
55°	432	447	461	471	474	387
65°	298	318	340	353	357	296
75°	164	187	216	234	238	174
85°	49	78	110	129	136	51
90°	14	43	73	94	100	10
95°	12	35	65	85	91	9
105°	8	22	49	67	73	8
115°	5	12	35	51	56	5
125°	4	3	20	35	39	3
135°	2	1	7	19	23	1
145°	1	0	0	4	8	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°	909.5	909.5	909.5	909.5	909.5
2.5°	912.2	910.4	904.2	910.4	909.5
5°	909.5	907.8	901.5	908.7	907.8
7.5°	903.3	902.4	896.2	902.4	901.5
10°	894.4	894.4	887.3	893.5	892.6
12.5°	881.9	882.8	877.4	881.9	879.2
15°	868.5	869.4	863.2	868.5	865.0
17.5°	851.6	853.4	847.1	851.6	848.9
20°	832.9	834.6	828.4	831.1	831.1
22.5°	811.5	815.0	807.9	811.5	808.8
25°	789.2	791.8	786.5	790.1	785.6
27.5°	765.1	768.7	762.4	765.1	763.3
30°	737.4	742.8	737.4	739.2	738.3
32.5°	712.5	716.9	713.4	715.2	714.3
35°	683.1	689.3	686.6	689.3	689.3
37.5°	654.5	659.9	659.0	662.5	661.6
40°	625.1	632.2	631.3	634.9	636.7
42.5°	593.0	602.8	605.5	609.9	609.9
45°	562.7	572.5	576.9	583.2	584.1
47.5°	531.5	540.4	547.5	556.4	558.2
50°	499.4	509.2	519.0	528.8	531.5
52.5°	465.5	478.0	490.4	501.1	502.9
55°	432.5	446.7	461.0	470.8	474.4
57.5°	398.6	415.5	431.6	442.3	445.0
60°	364.7	382.5	400.4	413.8	416.4
62.5°	331.7	349.6	369.2	384.3	387.9
65°	297.8	318.3	339.7	353.1	356.7
67.5°	266.6	286.2	307.6	323.7	328.1
70°	231.8	252.4	275.5	292.5	297.8
72.5°	198.0	219.4	245.2	263.9	267.5
75°	164.1	187.3	215.8	233.6	238.1
77.5°	131.1	157.8	184.6	204.2	207.8
80°	100.8	127.5	157.8	177.5	181.0
82.5°	73.1	101.7	132.9	151.6	158.7
85°	49.0	78.5	109.7	129.3	136.4
87.5°	31.2	59.7	90.1	110.6	116.8
90°	14.3	42.8	73.1	93.6	99.9
92.5°	12.5	38.3	69.6	89.2	95.4
95°	11.6	34.8	65.1	84.7	91.0
97.5°	10.7	32.1	61.5	80.3	86.5
100°	9.8	28.5	57.1	75.8	81.1
102.5°	8.9	25.9	53.5	71.3	76.7
105°	8.0	22.3	49.0	66.9	73.1
107.5°	7.1	19.6	45.5	63.3	68.7
110°	6.2	16.9	41.9	58.9	65.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.2	14.3	38.3	54.4	60.6
115°	5.4	11.6	34.8	50.8	56.2
117.5°	4.5	8.9	31.2	46.4	52.6
120°	4.5	7.1	27.6	42.8	48.2
122.5°	3.6	4.5	24.1	38.3	43.7
125°	3.6	2.7	20.5	34.8	39.2
127.5°	2.7	1.8	16.9	30.3	35.7
130°	2.7	1.8	14.3	26.8	31.2
132.5°	1.8	1.8	10.7	23.2	26.8
135°	1.8	0.9	7.1	18.7	23.2
137.5°	1.8	0.9	4.5	15.2	18.7
140°	0.9	0.9	1.8	11.6	15.2
142.5°	0.9	0.0	0.0	8.0	11.6
145°	0.9	0.0	0.0	4.5	8.0
147.5°	0.0	0.0	0.0	1.8	3.6
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)