

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: P242623

Luminaire Tested: **S124DR-S350D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242623
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S350D940-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1247.1 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

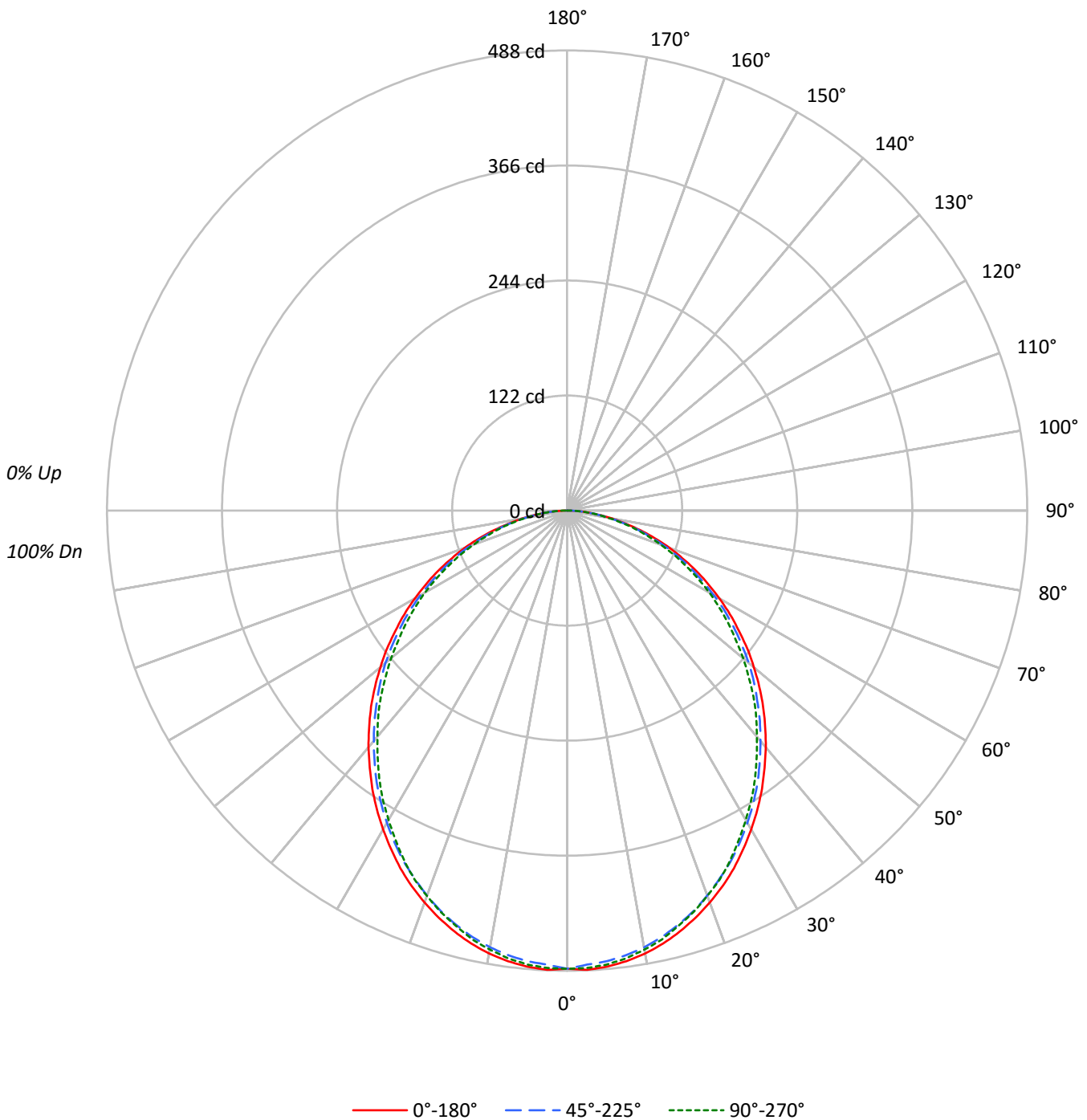
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4319	4319	4319
5°	4332	4280	4312
10°	4305	4245	4267
15°	4252	4185	4195
20°	4184	4110	4114
25°	4105	4025	4013
30°	4008	3924	3888
35°	3908	3820	3769
40°	3804	3700	3632
45°	3696	3583	3514
50°	3575	3478	3370
55°	3445	3343	3234
60°	3316	3191	3093
65°	3170	3046	2924
70°	3004	2854	2742
75°	2754	2620	2555
80°	2452	2350	2293
85°	2142	2060	2030



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.8	3.7
10°-20°	129.0	10.3
20°-30°	189.9	15.2
30°-40°	220.7	17.7
40°-50°	220.7	17.7
50°-60°	193.0	15.5
60°-70°	143.3	11.5
70°-80°	81.3	6.5
80°-90°	23.3	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	364.7	29.2
0°-40°	585.5	46.9
0°-60°	999.2	80.1
0°-90°	1247.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1247.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	486	484	480	484	483	46
15°	462	461	455	457	456	130
25°	418	416	410	411	409	193
35°	360	357	352	349	347	225
45°	294	291	285	281	280	227
55°	222	221	216	211	209	199
65°	151	149	145	141	139	149
75°	80	78	76	75	74	85
85°	21	21	20	20	20	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	485.9	485.9	485.9	485.9	485.9
2.5°	487.5	486.3	482.0	485.9	485.5
5°	485.5	484.0	479.7	484.0	483.2
7.5°	482.0	480.4	475.8	479.3	478.9
10°	476.9	475.4	470.3	473.4	472.7
12.5°	470.3	468.8	463.3	466.8	465.7
15°	462.1	460.6	454.8	457.1	455.9
17.5°	452.8	450.9	445.4	447.0	446.2
20°	442.3	440.3	434.5	435.7	434.9
22.5°	431.0	428.3	422.4	424.8	423.2
25°	418.5	415.8	410.4	410.8	409.2
27.5°	404.5	401.8	396.7	396.0	394.0
30°	390.5	387.4	382.3	380.8	378.8
32.5°	375.7	373.0	367.5	365.6	363.6
35°	360.1	357.4	352.0	349.2	347.3
37.5°	343.8	341.5	335.6	332.9	330.2
40°	327.8	324.7	318.9	315.0	313.0
42.5°	310.7	309.1	302.5	297.8	296.7
45°	294.0	291.2	285.0	280.7	279.5
47.5°	276.4	274.5	268.6	264.0	260.9
50°	258.5	257.0	251.5	246.1	243.7
52.5°	241.0	239.1	233.2	228.5	225.4
55°	222.3	221.1	215.7	211.0	208.7
57.5°	204.8	203.6	198.2	193.5	191.2
60°	186.5	184.5	179.5	176.0	174.0
62.5°	168.6	167.0	161.6	158.5	156.5
65°	150.7	148.7	144.8	140.9	139.0
67.5°	132.4	130.8	126.9	123.0	122.6
70°	115.6	112.9	109.8	106.7	105.5
72.5°	97.7	95.0	92.7	90.3	89.2
75°	80.2	78.3	76.3	74.8	74.4
77.5°	63.1	62.3	60.3	60.0	58.8
80°	47.9	46.7	45.9	45.2	44.8
82.5°	33.1	32.7	32.7	32.3	31.9
85°	21.0	21.0	20.2	20.2	19.9
87.5°	10.1	9.7	9.3	9.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)