

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: P243297

Luminaire Tested: **S123DR-H560D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243297
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-49)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H560D840-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2160.4 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

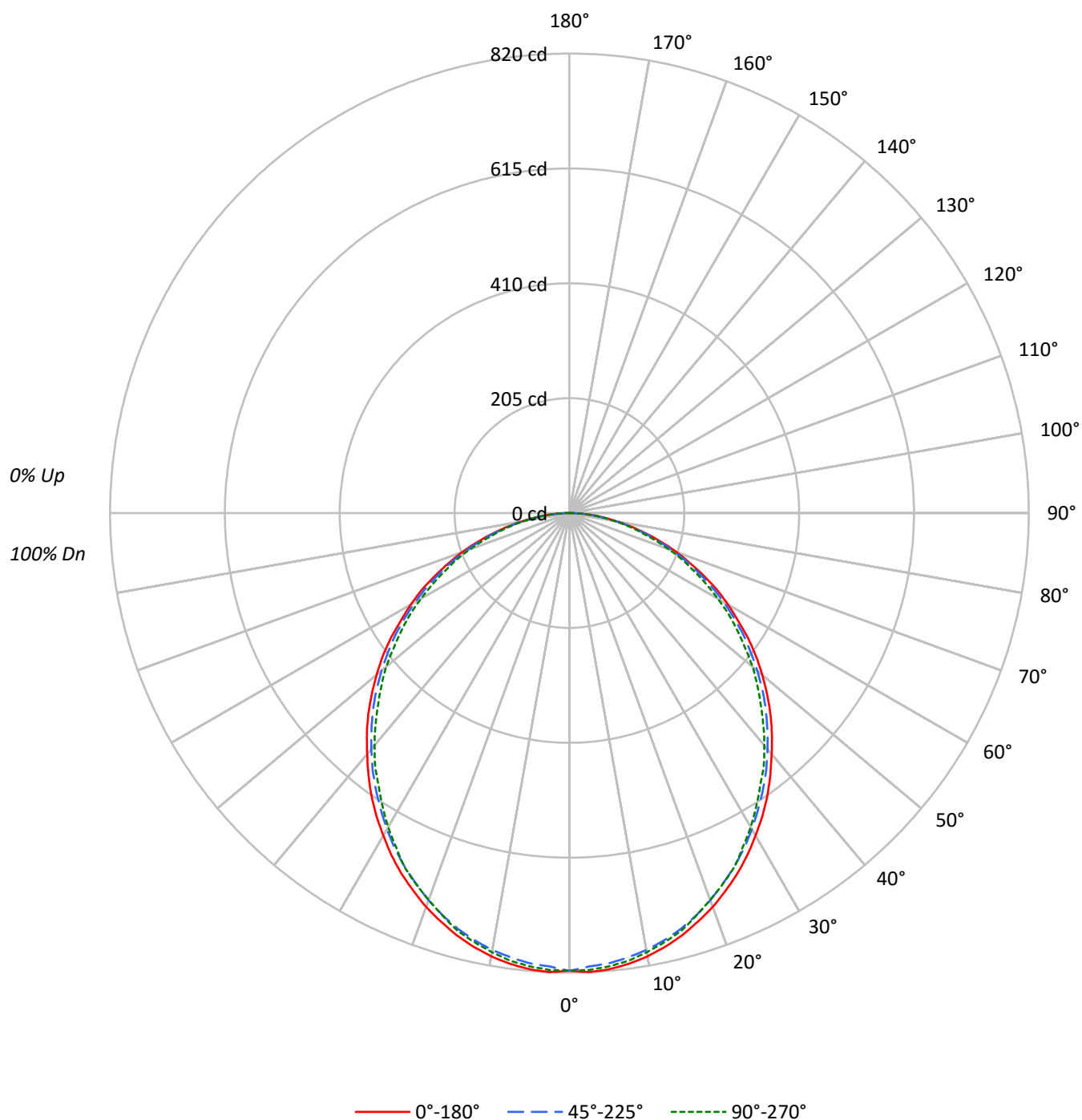
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70		
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59		
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53	51		
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34		
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30		
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27		
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9899	9899	9899
5°	9945	9814	9879
10°	9886	9746	9795
15°	9783	9640	9683
20°	9649	9483	9474
25°	9490	9310	9319
30°	9301	9121	9056
35°	9115	8917	8787
40°	8885	8704	8565
45°	8701	8494	8274
50°	8469	8252	8048
55°	8223	8009	7741
60°	7932	7721	7411
65°	7589	7357	7047
70°	7205	6968	6680
75°	6683	6496	6149
80°	6017	5877	5689
85°	5619	5340	5146

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	3.6
10°-20°	217.9	10.1
20°-30°	322.6	14.9
30°-40°	378.3	17.5
40°-50°	382.5	17.7
50°-60°	338.2	15.7
60°-70°	254.0	11.8
70°-80°	146.4	6.8
80°-90°	43.4	2.0
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°	617.5	28.6
0°-40°	995.8	46.1
0°-60°	1716.5	79.5
0°-90°	2160.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2160.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	817	817	817	817	817	
5°	817	814	807	813	812	78
15°	780	776	768	774	772	220
25°	710	704	696	700	697	327
35°	616	611	603	600	594	385
45°	508	504	496	489	483	391
55°	389	386	379	372	366	347
65°	265	263	256	250	246	262
75°	143	141	139	135	131	151
85°	40	40	38	38	37	45
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	816.7	816.7	816.7	816.7	816.7
2.5°	820.0	817.3	809.9	817.3	816.0
5°	817.3	814.0	806.6	813.3	811.9
7.5°	811.3	807.9	799.8	807.2	805.9
10°	803.2	799.8	791.8	797.8	795.8
12.5°	792.4	789.1	781.0	785.7	784.3
15°	779.6	775.6	768.2	773.6	771.6
17.5°	764.1	760.8	752.7	759.4	753.4
20°	748.0	744.6	735.2	741.3	734.5
22.5°	729.1	725.1	715.7	719.7	716.3
25°	709.6	704.2	696.1	699.5	696.8
27.5°	688.1	682.7	674.6	676.0	671.2
30°	664.5	659.8	651.7	653.1	647.0
32.5°	640.9	636.9	626.8	626.8	620.7
35°	616.0	610.6	602.6	600.5	593.8
37.5°	589.1	584.4	577.0	573.6	569.6
40°	561.5	558.8	550.1	546.0	541.3
42.5°	535.2	530.5	523.1	517.7	512.3
45°	507.6	503.6	495.5	488.8	482.7
47.5°	478.7	475.3	467.2	459.8	455.1
50°	449.1	446.4	437.6	429.5	426.8
52.5°	420.1	416.7	408.0	400.6	395.2
55°	389.1	386.5	379.0	371.6	366.3
57.5°	356.2	356.2	348.1	341.3	337.3
60°	327.2	323.8	318.5	311.0	305.7
62.5°	296.9	294.9	287.5	280.1	276.0
65°	264.6	262.6	256.5	249.8	245.7
67.5°	232.9	232.3	226.9	221.5	218.8
70°	203.3	202.0	196.6	191.2	188.5
72.5°	173.0	171.7	167.0	162.3	158.9
75°	142.7	141.4	138.7	134.7	131.3
77.5°	113.1	113.1	109.7	108.4	107.0
80°	86.2	85.5	84.2	82.8	81.5
82.5°	61.9	61.3	59.9	59.2	59.2
85°	40.4	39.7	38.4	37.7	37.0
87.5°	20.9	19.5	18.9	17.5	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)