

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: P242433

Luminaire Tested: **S123DR-S560D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242433
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S560D835-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2173.3 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

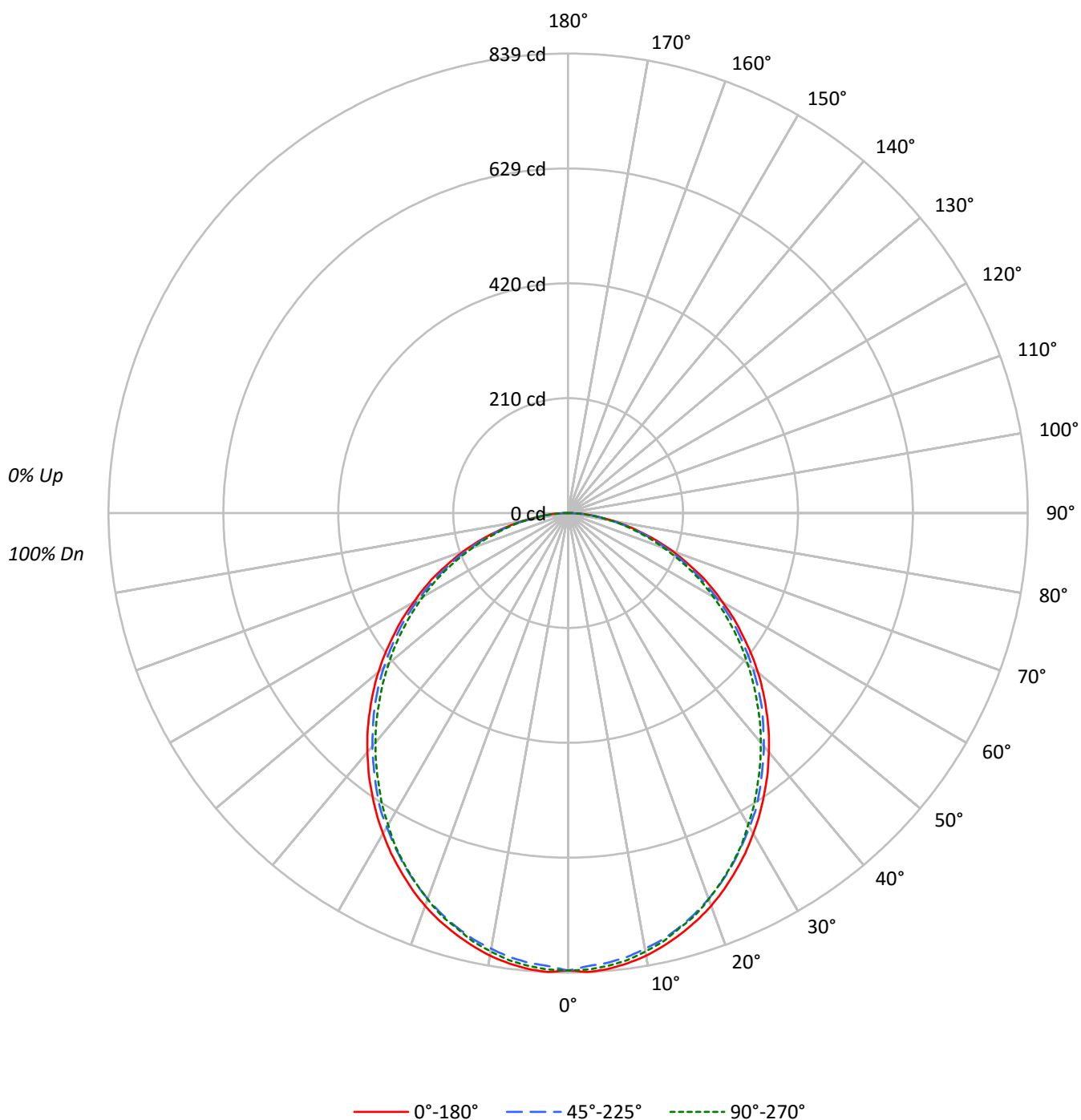
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10
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	95	98	94	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	72	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44		
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39		
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34		
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31		
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28		
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10122	10122	10122
5°	10170	10030	10099
10°	10101	9943	10004
15°	9984	9831	9848
20°	9846	9669	9678
25°	9660	9478	9460
30°	9457	9266	9196
35°	9244	9041	8924
40°	9021	8794	8657
45°	8777	8566	8357
50°	8531	8286	8056
55°	8210	7997	7754
60°	7886	7658	7416
65°	7601	7291	7064
70°	7177	6872	6567
75°	6557	6322	6051
80°	5912	5661	5612
85°	5188	4993	4798

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	3.6
10°-20°	222.3	10.2
20°-30°	328.3	15.1
30°-40°	383.4	17.6
40°-50°	385.5	17.7
50°-60°	338.6	15.6
60°-70°	252.2	11.6
70°-80°	143.5	6.6
80°-90°	40.8	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°	629.3	29.0
0°-40°	1012.7	46.6
0°-60°	1736.8	79.9
0°-90°	2173.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2173.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	836	832	824	832	830	79
15°	796	793	783	789	785	224
25°	722	718	709	709	707	333
35°	625	620	611	607	603	391
45°	512	509	500	491	488	395
55°	388	388	378	370	367	348
65°	265	261	254	248	246	261
75°	140	137	135	131	129	150
85°	37	36	36	34	34	43
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	835.1	835.1	835.1	835.1	835.1
2.5°	838.7	835.8	827.9	835.1	834.3
5°	835.8	832.2	824.3	831.5	830.0
7.5°	829.3	825.7	817.8	824.3	823.6
10°	820.7	817.1	807.8	814.2	812.8
12.5°	809.2	806.3	797.7	802.0	801.3
15°	795.6	792.7	783.4	789.1	784.8
17.5°	780.5	776.9	767.6	771.9	770.4
20°	763.3	759.0	749.6	752.5	750.3
22.5°	743.9	739.6	730.2	732.4	729.5
25°	722.3	718.0	708.7	709.4	707.3
27.5°	700.1	695.8	685.7	686.4	684.3
30°	675.7	672.1	662.0	662.0	657.0
32.5°	651.2	646.2	639.0	634.0	631.9
35°	624.7	620.4	611.0	606.7	603.1
37.5°	598.1	592.4	583.0	578.0	575.9
40°	570.1	565.8	555.8	550.0	547.1
42.5°	542.1	537.1	527.0	521.3	518.4
45°	512.0	509.1	499.7	491.1	487.5
47.5°	482.5	478.2	469.6	461.0	458.1
50°	452.4	448.8	439.4	431.5	427.2
52.5°	420.8	418.6	408.6	402.1	397.8
55°	388.5	387.7	378.4	370.5	366.9
57.5°	358.3	355.4	348.2	341.1	336.8
60°	325.3	324.5	315.9	309.5	305.9
62.5°	295.8	293.7	285.1	278.6	276.4
65°	265.0	261.4	254.2	248.4	246.3
67.5°	231.9	229.1	223.3	218.3	215.4
70°	202.5	198.2	193.9	188.8	185.3
72.5°	171.6	168.7	163.7	159.4	158.0
75°	140.0	137.1	135.0	131.4	129.2
77.5°	112.0	110.6	107.7	104.8	104.8
80°	84.7	82.6	81.1	80.4	80.4
82.5°	58.2	58.2	58.2	56.7	56.0
85°	37.3	35.9	35.9	34.5	34.5
87.5°	18.7	16.5	15.8	15.1	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)