

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: G3-1802-639-54

Luminaire Tested: **S123DR-H775D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: G3-1802-639-54
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H775D835-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3255.0 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.92' x H: 0.08')
CIE Type: Direct

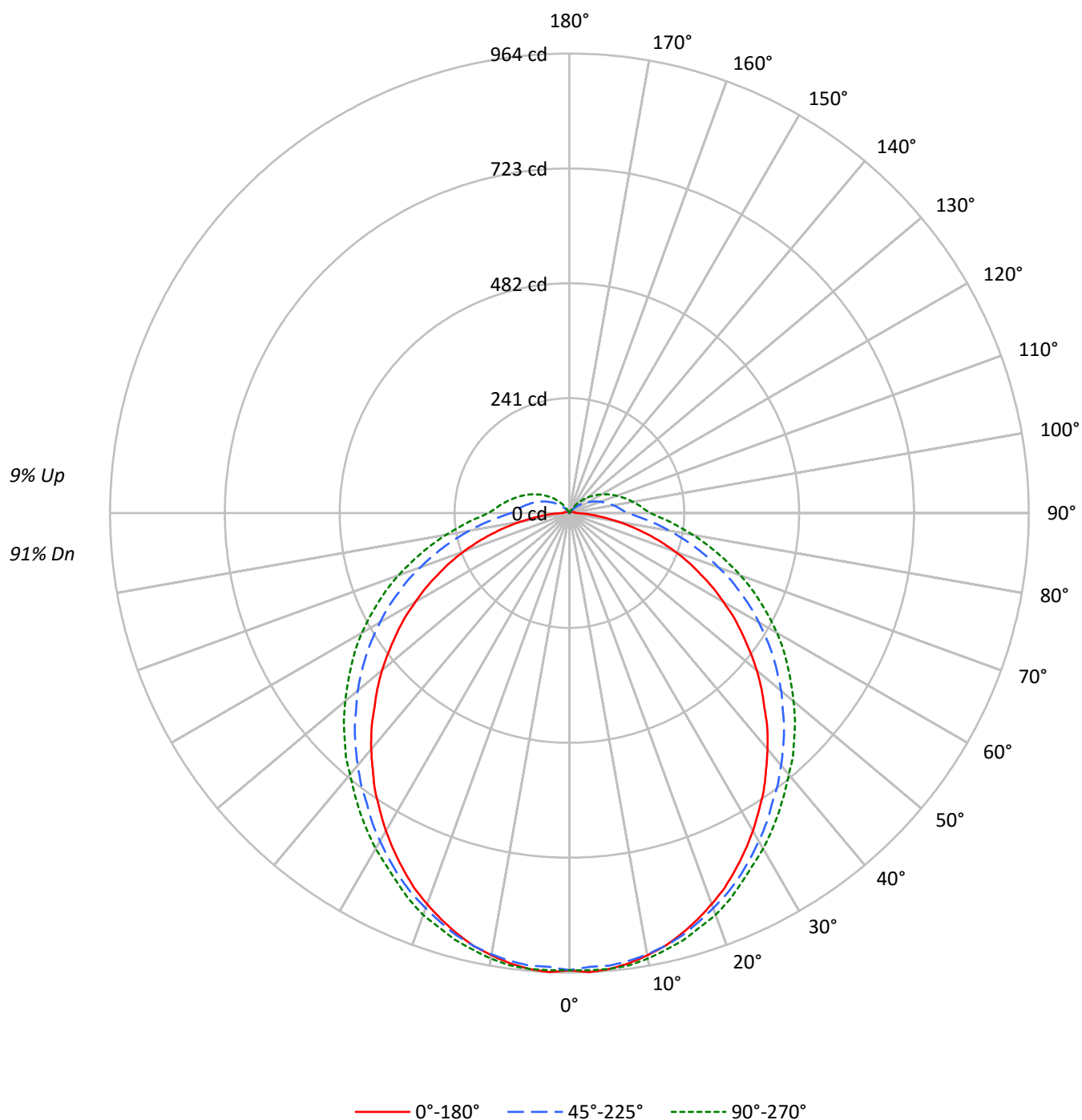
Input Watts (W): 25.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																	
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94
1	105	100	95	90	101	96	92	88	91	87	84	85	82	80	80	78	76
2	95	86	79	72	91	83	77	71	78	73	68	74	69	65	69	66	62
3	86	75	66	60	83	73	65	58	69	62	56	65	59	54	61	56	52
4	79	66	57	50	76	64	56	49	61	53	48	57	51	46	54	49	45
5	72	59	50	43	70	57	49	42	54	47	41	51	45	40	49	43	39
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34
7	62	48	39	33	60	47	38	32	44	37	32	42	36	31	40	34	30
8	57	44	35	29	55	43	34	29	41	33	28	39	32	27	37	31	27
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11501	11501	11501
5°	11535	11205	11200
10°	11428	10922	10860
15°	11271	10611	10487
20°	11056	10241	10109
25°	10809	9898	9673
30°	10533	9514	9305
35°	10256	9124	8938
40°	9951	8806	8588
45°	9615	8492	8296
50°	9334	8171	7992
55°	8989	7844	7693
60°	8628	7482	7402
65°	8250	7096	7047
70°	7818	6681	6700
75°	7169	6229	6291
80°	6347	5783	5931
85°	5645	5422	5657

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.0	2.8
10°-20°	259.6	8.0
20°-30°	388.8	11.9
30°-40°	465.2	14.3
40°-50°	487.8	15.0
50°-60°	458.6	14.1
60°-70°	383.8	11.8
70°-80°	275.4	8.5
80°-90°	165.0	5.1
90°-100°	104.6	3.2
100°-110°	77.1	2.4
110°-120°	51.6	1.6
120°-130°	29.8	0.9
130°-140°	13.7	0.4
140°-150°	3.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	739.4	22.7
0°-40°	1204.5	37.0
0°-60°	2150.9	66.1
0°-90°	2975.1	91.4
90°-120°	233.3	7.2
90°-150°	279.9	8.6
90°-180°	280.0	8.6
0°-180°	3255.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	959	953	961	960	91
15°	913	919	917	929	927	257
25°	825	836	843	856	855	380
35°	711	728	742	761	766	444
45°	579	608	637	659	667	448
55°	443	480	521	549	559	397
65°	304	349	396	431	442	302
75°	167	218	271	308	320	177
85°	51	104	162	199	212	52
90°	14	66	122	159	170	10
95°	11	54	106	140	151	9
105°	8	35	81	111	120	9
115°	5	18	57	83	92	5
125°	4	4	35	57	65	3
135°	2	1	15	33	39	2
145°	1	0	0	10	14	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°	959	959	959	959	959
2.5°	964	961	953	962	960
5°	960	959	953	961	960
7.5°	953	953	948	957	957
10°	942	945	940	950	949
12.5°	930	934	930	941	938
15°	913	919	917	929	927
17.5°	894	901	900	912	911
20°	873	882	882	894	897
22.5°	851	861	864	876	878
25°	825	836	843	856	855
27.5°	798	811	819	833	833
30°	770	785	795	810	813
32.5°	740	758	770	786	790
35°	711	728	742	761	766
37.5°	678	699	718	738	741
40°	647	670	691	712	716
42.5°	615	639	664	685	694
45°	579	608	637	659	667
47.5°	547	576	607	633	642
50°	513	543	580	605	614
52.5°	478	511	550	577	586
55°	443	480	521	549	559
57.5°	410	447	490	521	532
60°	373	414	459	491	503
62.5°	340	382	429	461	473
65°	304	349	396	431	442
67.5°	271	315	366	401	413
70°	236	282	333	369	382
72.5°	201	250	302	339	350
75°	167	218	271	308	320
77.5°	135	186	241	278	291
80°	103	156	213	250	263
82.5°	75	129	187	223	235
85°	51	104	162	199	212
87.5°	30	84	140	177	188
90°	14	66	122	159	170
92.5°	13	59	113	148	159
95°	11	54	106	140	151
97.5°	11	49	100	133	143
100°	10	44	94	125	135
102.5°	9	39	87	118	128
105°	8	35	81	111	120
107.5°	7	30	75	104	113
110°	7	26	69	97	106



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6	22	63	90	99
115°	5	18	57	83	92
117.5°	5	14	51	77	85
120°	5	11	46	70	78
122.5°	4	7	41	64	72
125°	4	4	35	57	65
127.5°	3	2	30	51	58
130°	3	2	25	45	52
132.5°	2	2	20	39	46
135°	2	1	15	33	39
137.5°	2	1	10	27	33
140°	1	1	5	21	27
142.5°	1	0	1	16	21
145°	1	0	0	10	14
147.5°	1	0	0	5	9
150°	1	0	0	0	3
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)