

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: G3-1802-639-55

Luminaire Tested: **S124DR-H795D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: G3-1802-639-55
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-H795D835-X4F0-XX-UDD-D-W
Description: DEFINE 4 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: 3216.6 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.88' x H: 0.08')
CIE Type: Direct

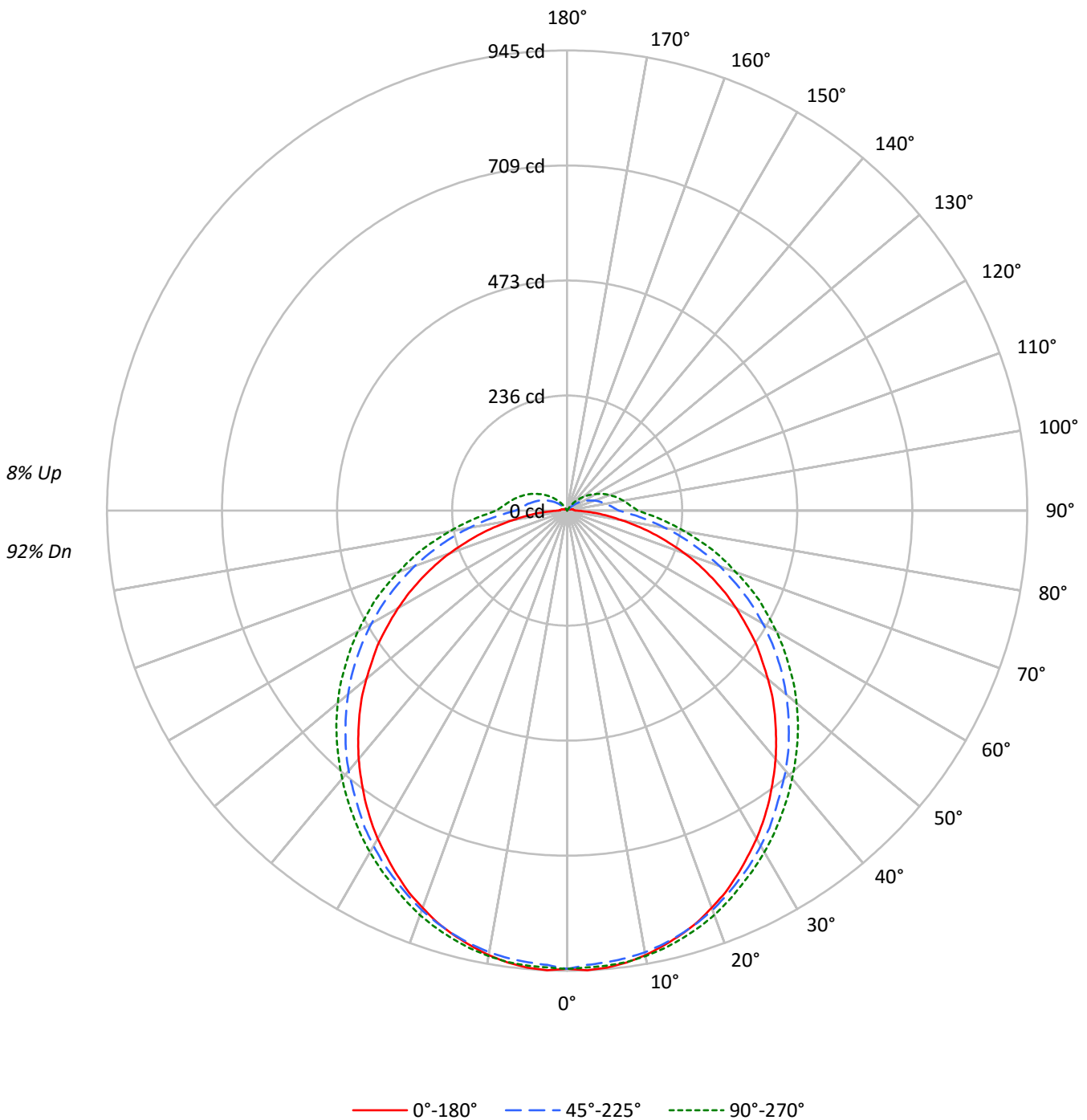
Input Watts (W): 25.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	46	55	49	45	43
5	72	59	50	43	70	58	49	42	55	47	41	52	45	40	49	43	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8364	8364	8364
5°	8390	8162	8179
10°	8336	8025	8009
15°	8253	7862	7816
20°	8147	7688	7622
25°	8021	7488	7397
30°	7887	7301	7205
35°	7740	7094	7004
40°	7591	6917	6818
45°	7433	6725	6639
50°	7254	6531	6454
55°	7097	6326	6240
60°	6873	6097	6032
65°	6615	5840	5821
70°	6307	5548	5520
75°	5818	5189	5302
80°	5156	4844	4992
85°	4666	4565	4812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	2.8
10°-20°	255.5	7.9
20°-30°	386.7	12.0
30°-40°	468.2	14.6
40°-50°	495.2	15.4
50°-60°	466.5	14.5
60°-70°	387.7	12.1
70°-80°	272.5	8.5
80°-90°	153.5	4.8
90°-100°	91.1	2.8
100°-110°	67.4	2.1
110°-120°	45.0	1.4
120°-130°	25.4	0.8
130°-140°	10.9	0.3
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	731.2	22.7
0°-40°	1199.4	37.3
0°-60°	2161.2	67.2
0°-90°	2974.8	92.5
90°-120°	203.5	6.3
90°-150°	241.8	7.5
90°-180°	242.0	7.5
0°-180°	3216.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	941	941	941	941	941	
5°	942	938	931	939	938	89
15°	902	904	901	911	910	254
25°	826	833	836	848	848	381
35°	724	736	747	763	766	453
45°	604	623	644	663	669	466
55°	472	497	527	550	556	421
65°	329	362	399	424	435	326
75°	183	222	266	296	308	194
85°	57	101	149	181	191	59
90°	17	59	106	135	145	11
95°	14	48	92	121	129	11
105°	10	31	70	96	105	11
115°	7	16	49	72	81	7
125°	4	3	29	49	56	4
135°	2	2	9	26	32	2
145°	1	0	0	6	10	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°	941	941	941	941	941
2.5°	945	942	934	940	939
5°	942	938	931	939	938
7.5°	936	933	927	936	935
10°	927	925	921	929	929
12.5°	915	915	912	921	921
15°	902	904	901	911	910
17.5°	887	889	888	898	898
20°	868	871	873	884	884
22.5°	849	853	855	867	867
25°	826	833	836	848	848
27.5°	802	811	817	828	830
30°	778	788	795	807	810
32.5°	752	762	773	785	789
35°	724	736	747	763	766
37.5°	695	709	722	739	743
40°	666	683	698	714	719
42.5°	635	652	672	689	694
45°	604	623	644	663	669
47.5°	573	593	616	636	643
50°	538	560	587	607	615
52.5°	504	528	558	578	587
55°	472	497	527	550	556
57.5°	435	463	496	521	527
60°	401	429	464	489	496
62.5°	366	396	432	457	464
65°	329	362	399	424	435
67.5°	293	326	365	393	402
70°	257	291	333	361	368
72.5°	219	256	299	328	338
75°	183	222	266	296	308
77.5°	148	189	235	266	274
80°	113	158	204	235	245
82.5°	85	127	175	208	216
85°	57	101	149	181	191
87.5°	34	79	125	155	165
90°	17	59	106	135	145
92.5°	15	53	98	127	137
95°	14	48	92	121	129
97.5°	13	44	86	114	123
100°	12	39	81	108	117
102.5°	11	35	75	102	111
105°	10	31	70	96	105
107.5°	9	27	65	90	99
110°	8	23	60	84	93



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7	20	54	78	87
115°	7	16	49	72	81
117.5°	6	12	44	66	74
120°	6	9	39	60	68
122.5°	5	6	34	55	62
125°	4	3	29	49	56
127.5°	4	3	24	43	50
130°	3	3	19	37	44
132.5°	3	2	14	32	38
135°	2	2	9	26	32
137.5°	2	1	6	21	27
140°	2	1	2	16	21
142.5°	1	1	0	11	15
145°	1	0	0	6	10
147.5°	1	0	0	1	5
150°	0	0	0	0	0
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)